FIG. 1

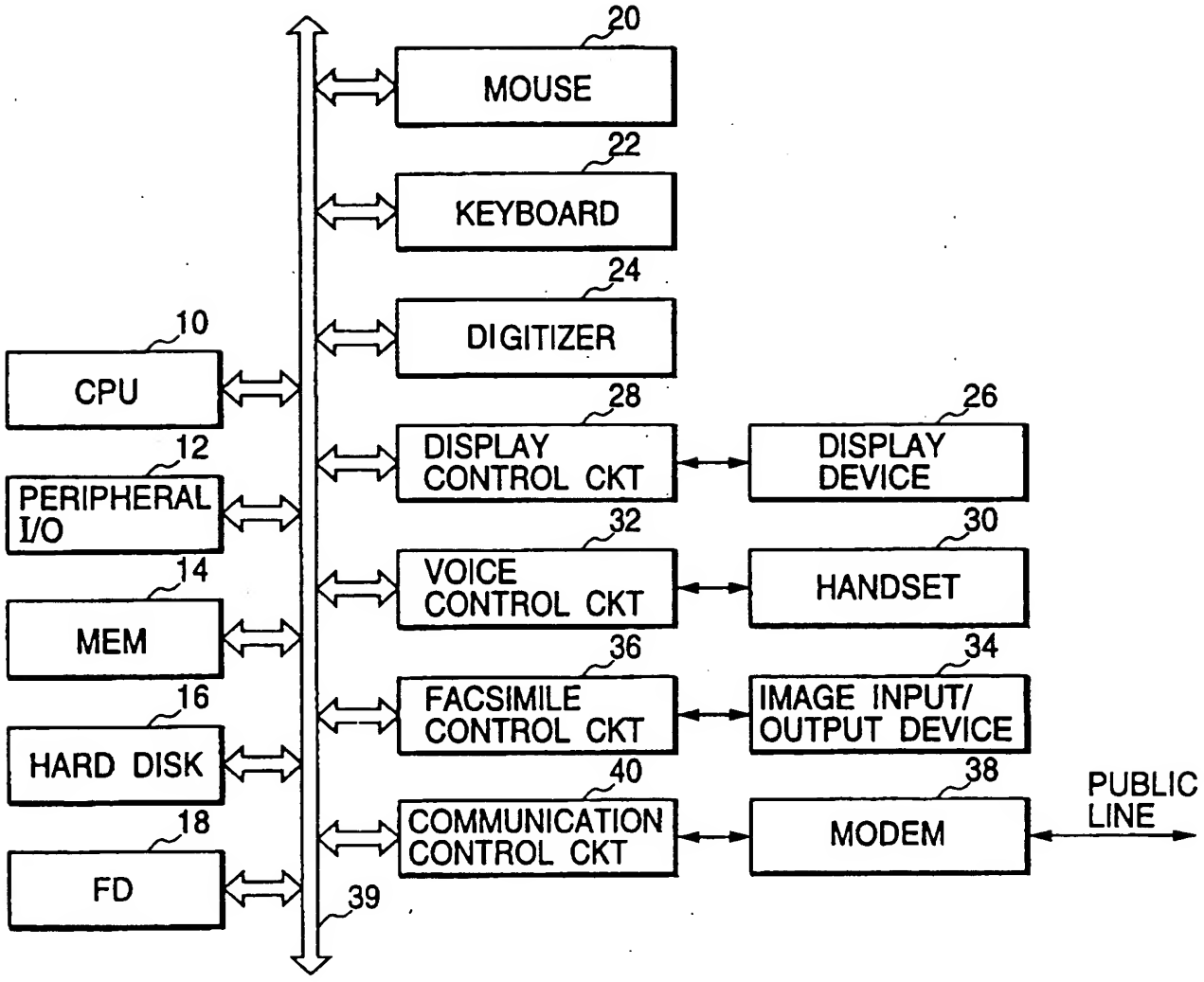

20
MOUSE
22
KEYBOARD
24
DIGITIZER
10
CPU
28
DISPLAY CONTROL CKT
26
DISPLAY DEVICE
12
PERIPHERAL I/O
32
VOICE CONTROL CKT
30
HANDSET
14
MEM
36
FACSIMILE CONTROL CKT
34
IMAGE INPUT/ OUTPUT DEVICE
16
HARD DISK
40
COMMUNICATION CONTROL CKT
38
MODEM
PUBLIC LINE
18
FD
39

FIG. 2

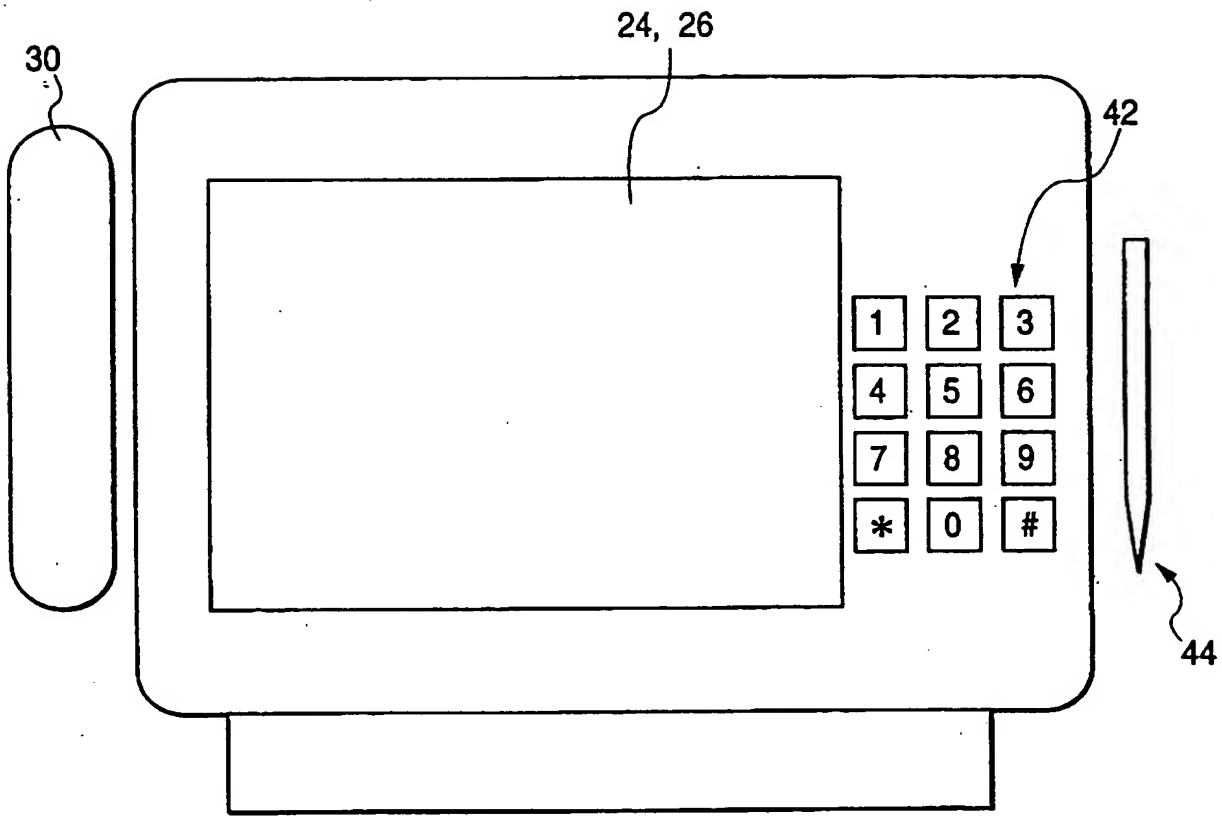


FIG. 3

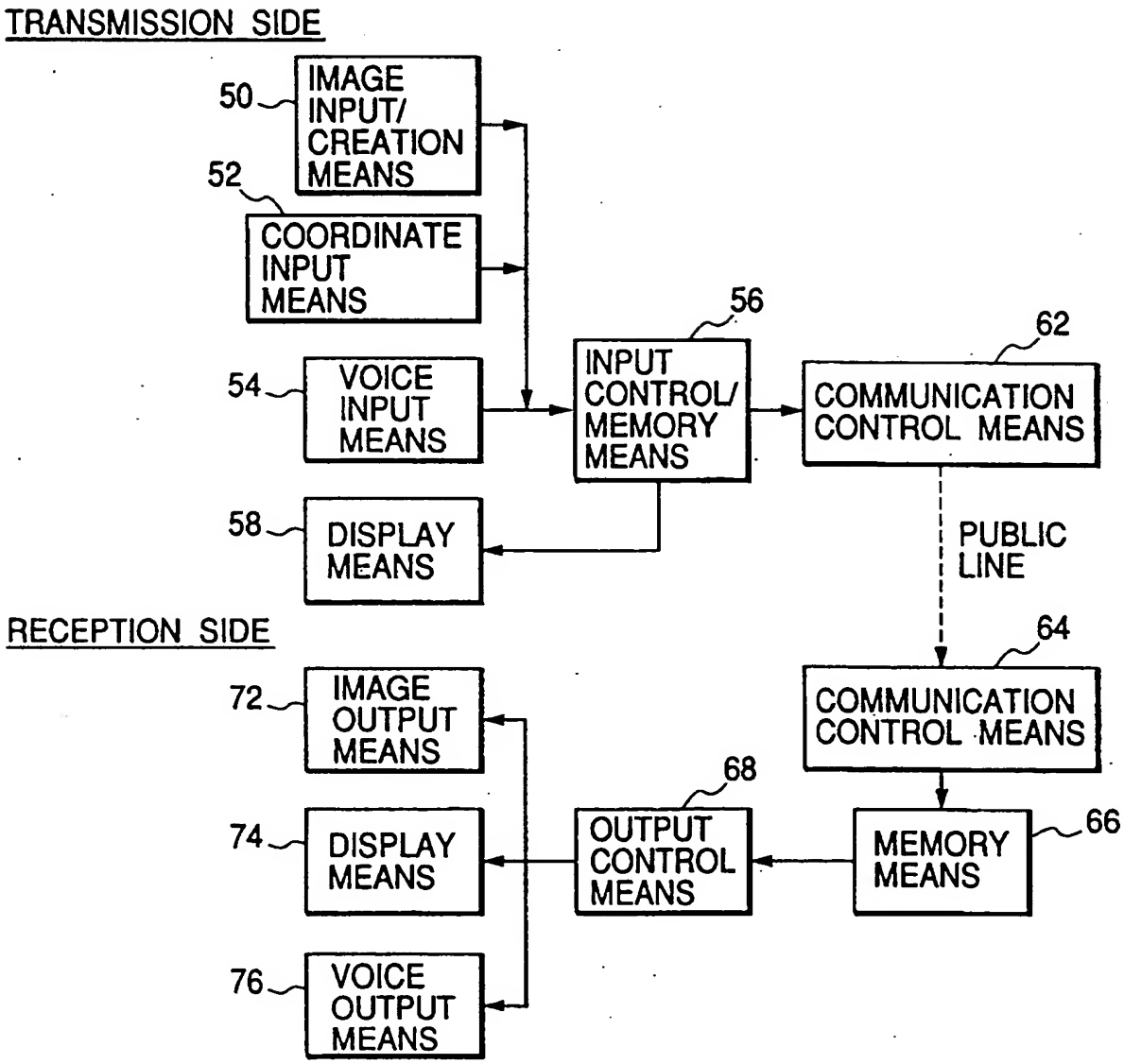

TRANSMISSION SIDE
50
IMAGE INPUT/ CREATION MEANS
52
COORDINATE INPUT MEANS
54
VOICE INPUT MEANS
56
INPUT CONTROL/ MEMORY MEANS
62
COMMUNICATION CONTROL MEANS
58
DISPLAY MEANS
PUBLIC LINE
RECEPTION SIDE
64
COMMUNICATION CONTROL MEANS
72
IMAGE OUTPUT MEANS
68
OUTPUT CONTROL MEANS
66
MEMORY MEANS
74
DISPLAY MEANS
76
VOICE OUTPUT MEANS

FIG. 4

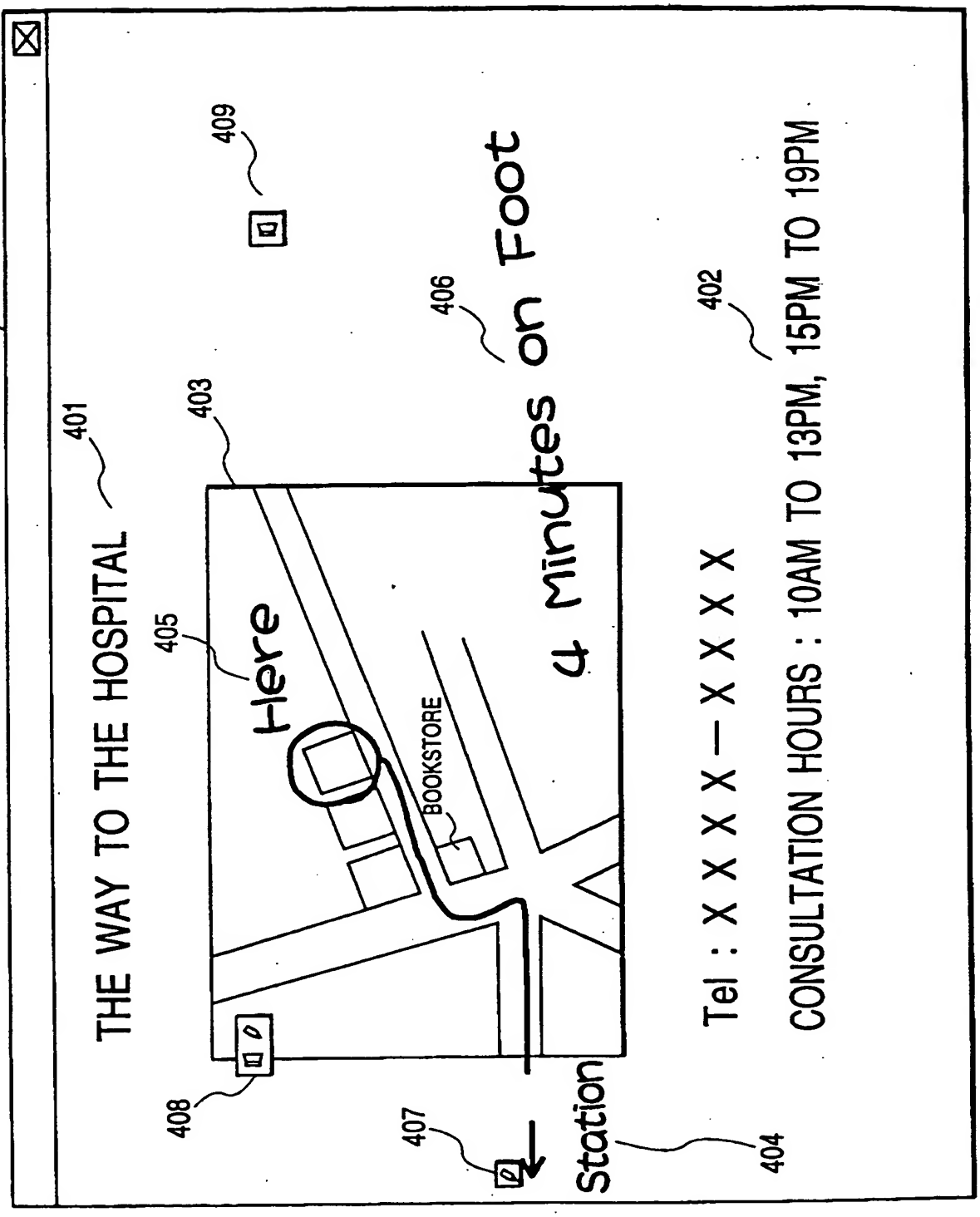

410
THE WAY TO THE HOSPITAL
401
403
409
406
4 Minutes on Foot
402
405
Here
BOOKSTORE
Tel : X X X X — X X X X
CONSULTATION HOURS : 10AM TO 13PM, 15PM TO 19PM
408
407
Station
404

FIG. 5

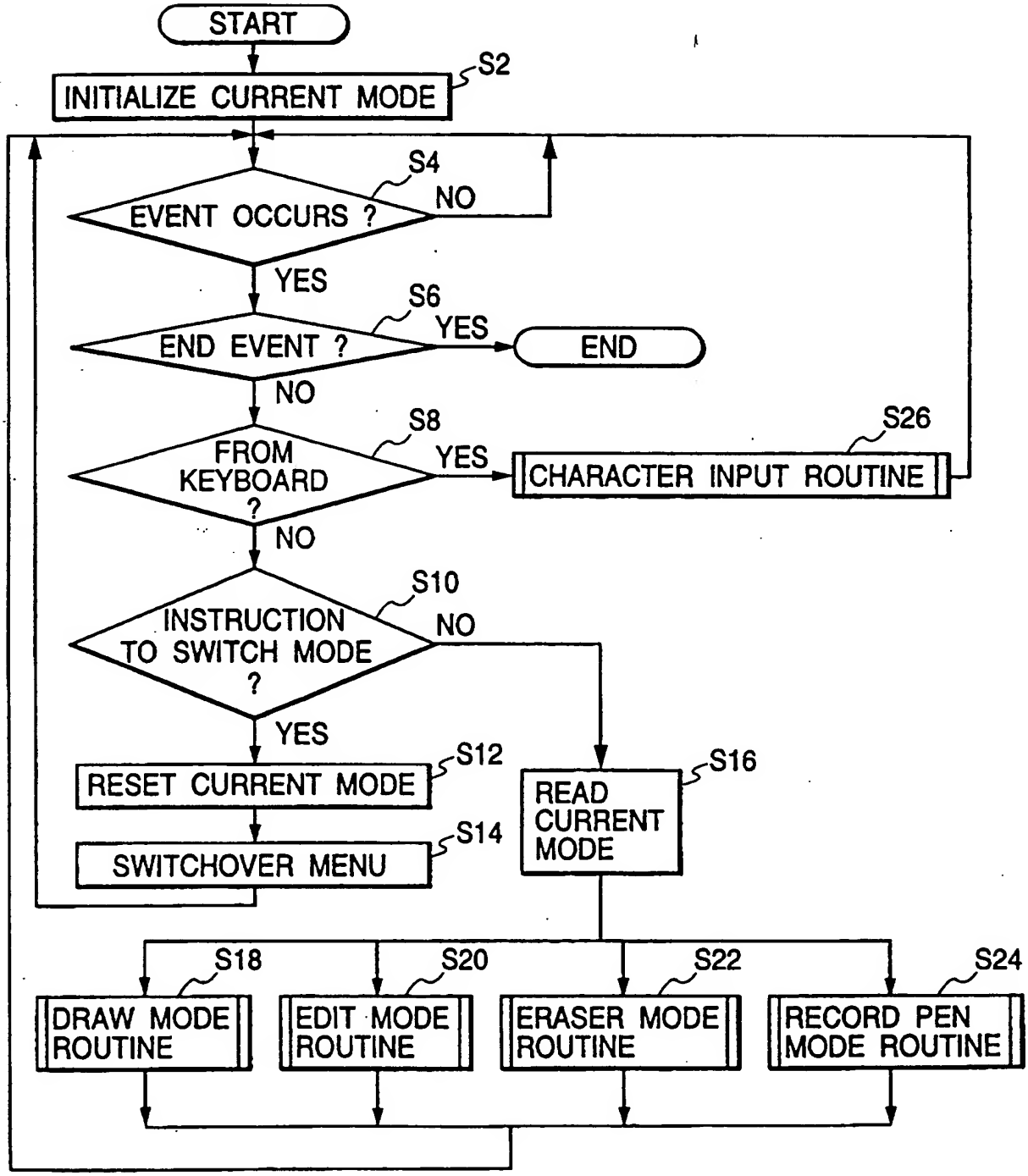

START
INITIALIZE CURRENT MODE
S2
S4
EVENT OCCURS ?
NO
YES
S6
END EVENT ?
YES
END
NO
S8
FROM KEYBOARD ?
YES
S26
CHARACTER INPUT ROUTINE
NO
S10
INSTRUCTION TO SWITCH MODE ?
NO
YES
S12
RESET CURRENT MODE
S14
SWITCHOVER MENU
S16
READ CURRENT MODE
S18
DRAW MODE ROUTINE
S20
EDIT MODE ROUTINE
S22
ERASER MODE ROUTINE
S24
RECORD PEN MODE ROUTINE

FIG. 6

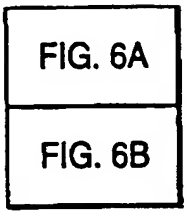


FIG. 6A
FIG. 6B

FIG. 6A

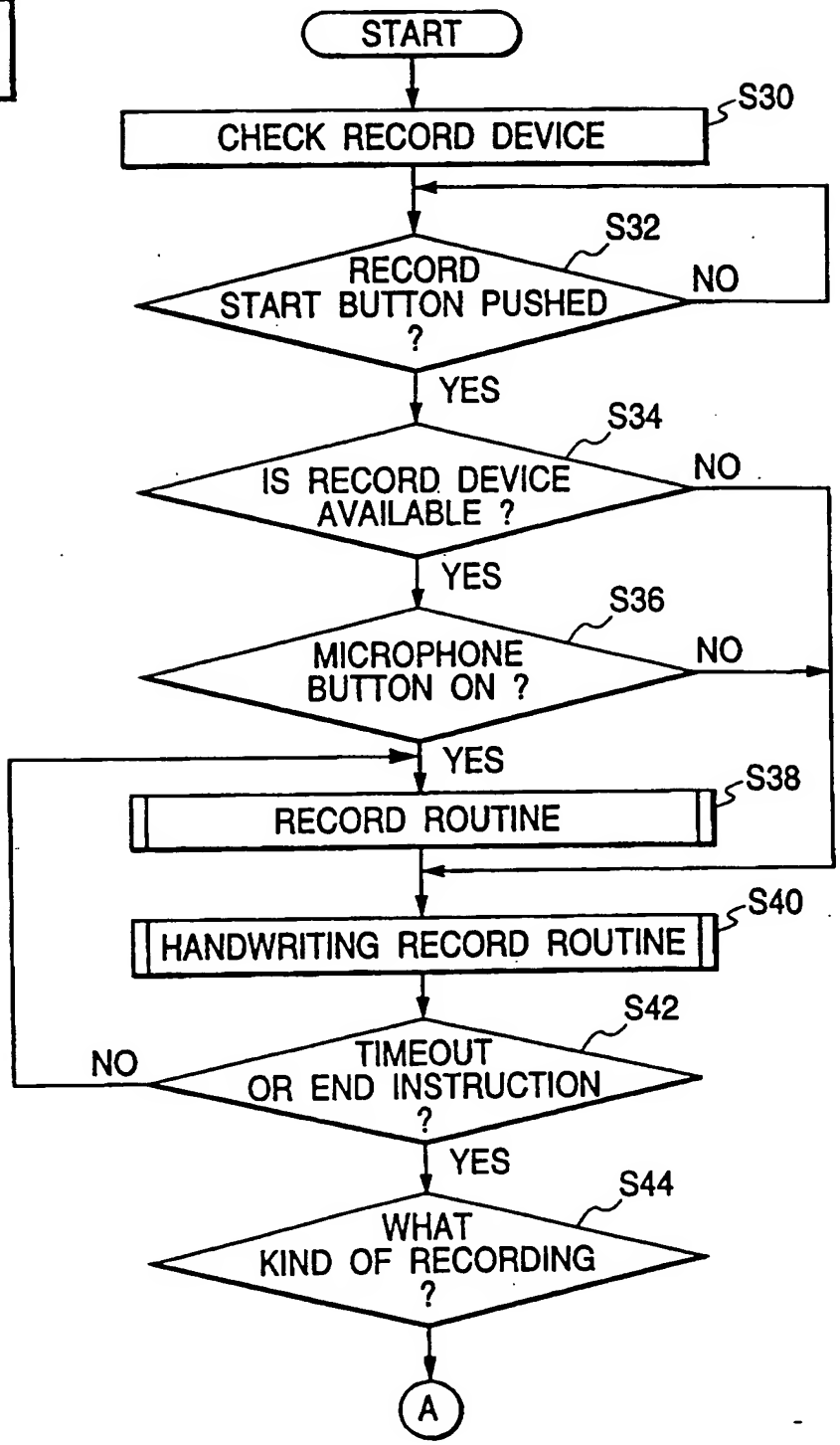

START
CHECK RECORD DEVICE
S30
S32
RECORD START BUTTON PUSHED ?
NO
YES
S34
IS RECORD DEVICE AVAILABLE ?
NO
YES
S36
MICROPHONE BUTTON ON ?
NO
YES
S38
RECORD ROUTINE
S40
HANDWRITING RECORD ROUTINE
S42
TIMEOUT OR END INSTRUCTION ?
NO
YES
S44
WHAT KIND OF RECORDING ?
A

FIG. 6B

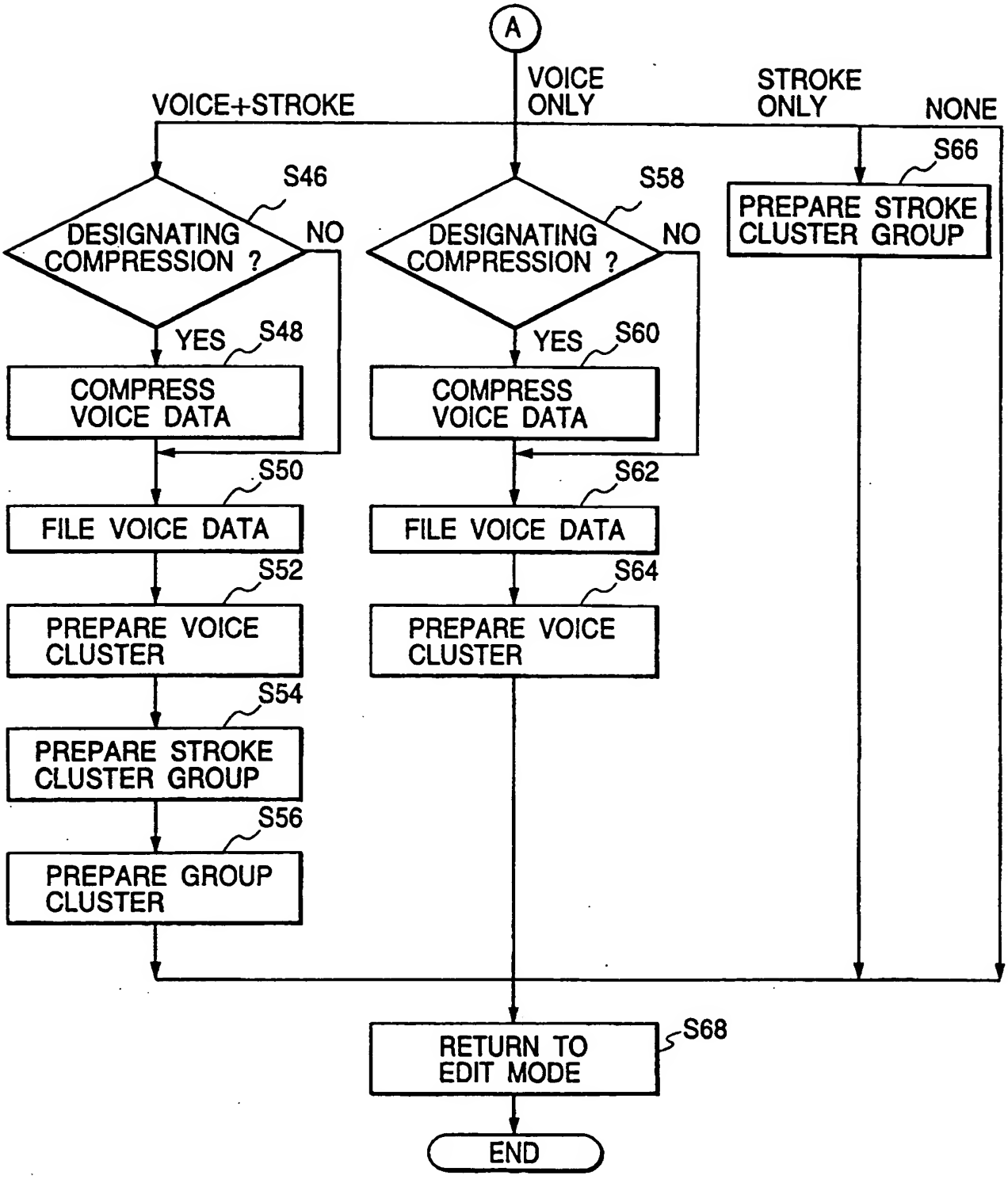

A
VOICE+STROKE
VOICE ONLY
STROKE ONLY
NONE
S46
DESIGNATING COMPRESSION ?
NO
YES
S48
COMPRESS VOICE DATA
S50
FILE VOICE DATA
S52
PREPARE VOICE CLUSTER
S54
PREPARE STROKE CLUSTER GROUP
S56
PREPARE GROUP CLUSTER
S58
DESIGNATING COMPRESSION ?
NO
YES
S60
COMPRESS VOICE DATA
S62
FILE VOICE DATA
S64
PREPARE VOICE CLUSTER
S66
PREPARE STROKE CLUSTER GROUP
S68
RETURN TO EDIT MODE
END

FIG. 7

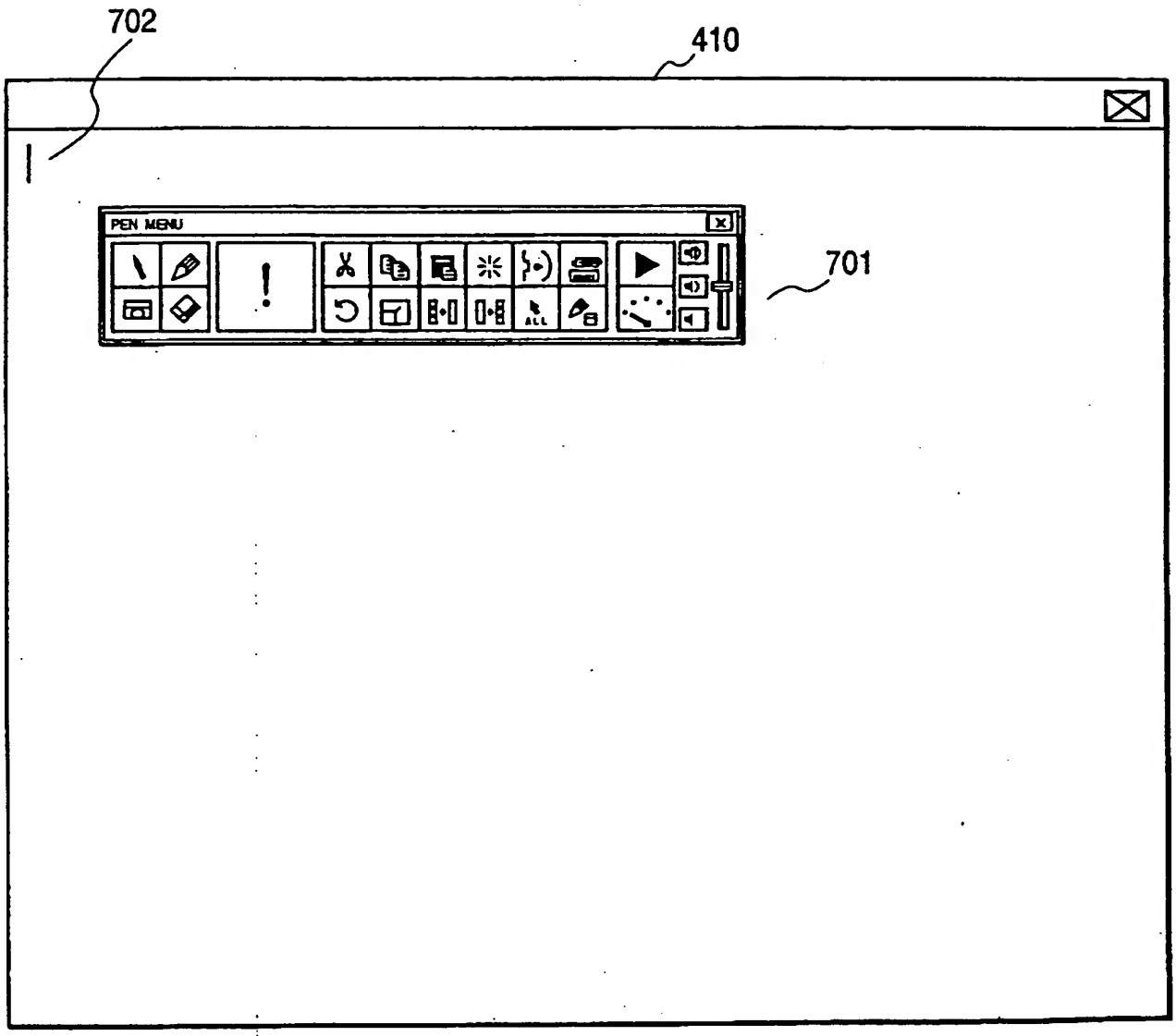


FIG. 8

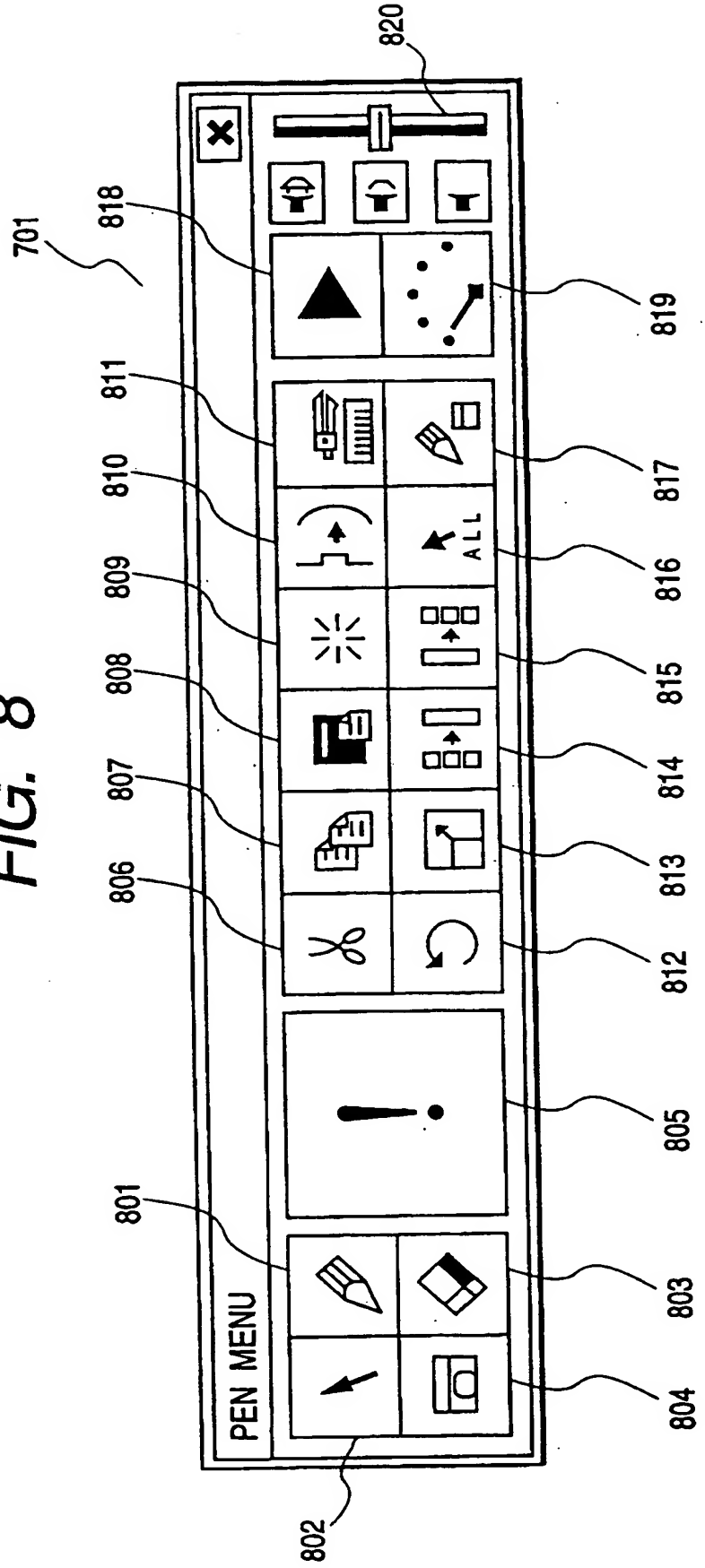

PEN MENU
ALL
701
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820

FIG. 9

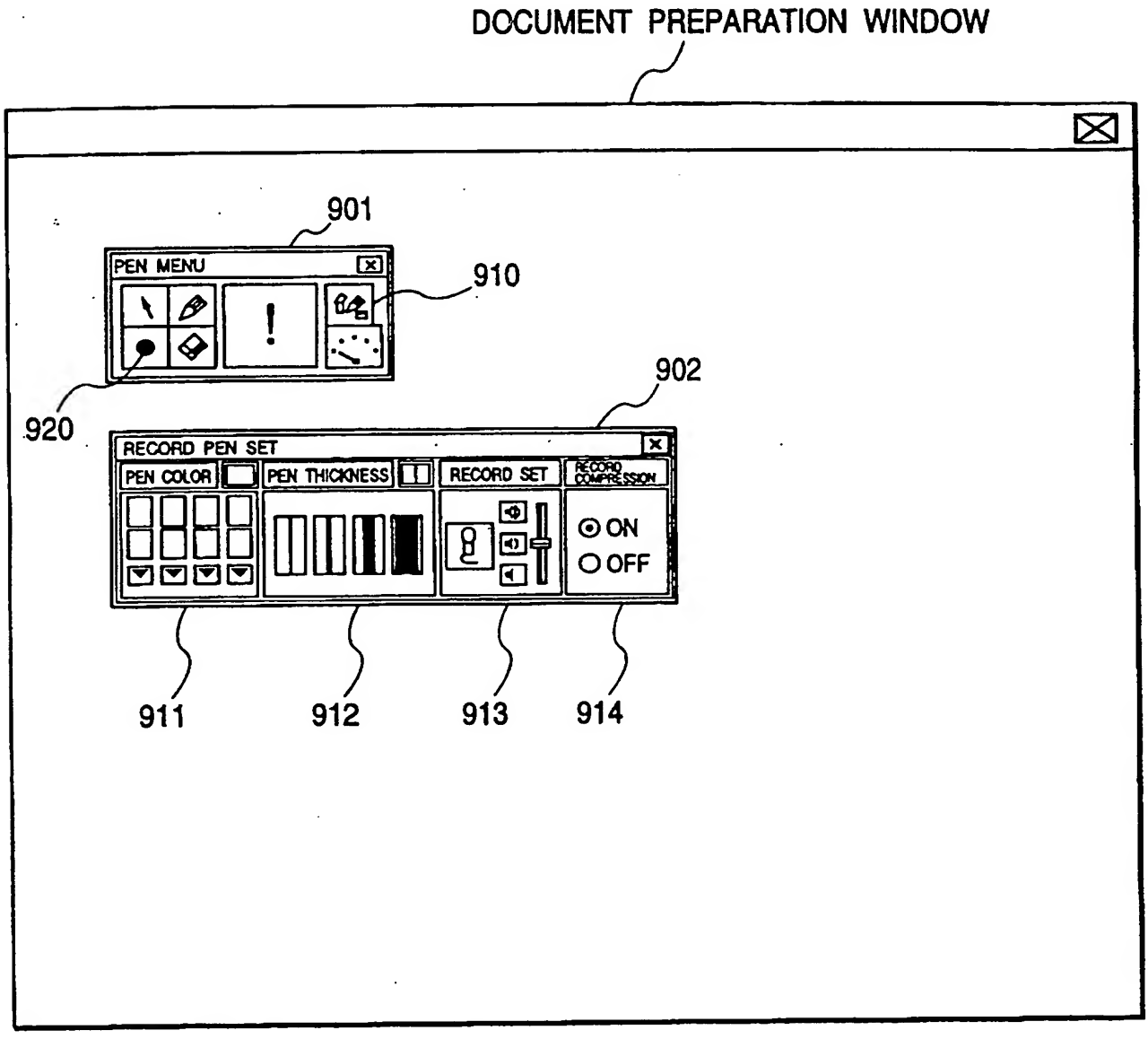

DOCUMENT PREPARATION WINDOW
901
PEN MENU
910
920
902
RECORD PEN SET
PEN COLOR
PEN THICKNESS
RECORD SET
RECORD COMPRESSION
ON
OFF
911
912
913
914

FIG. 10

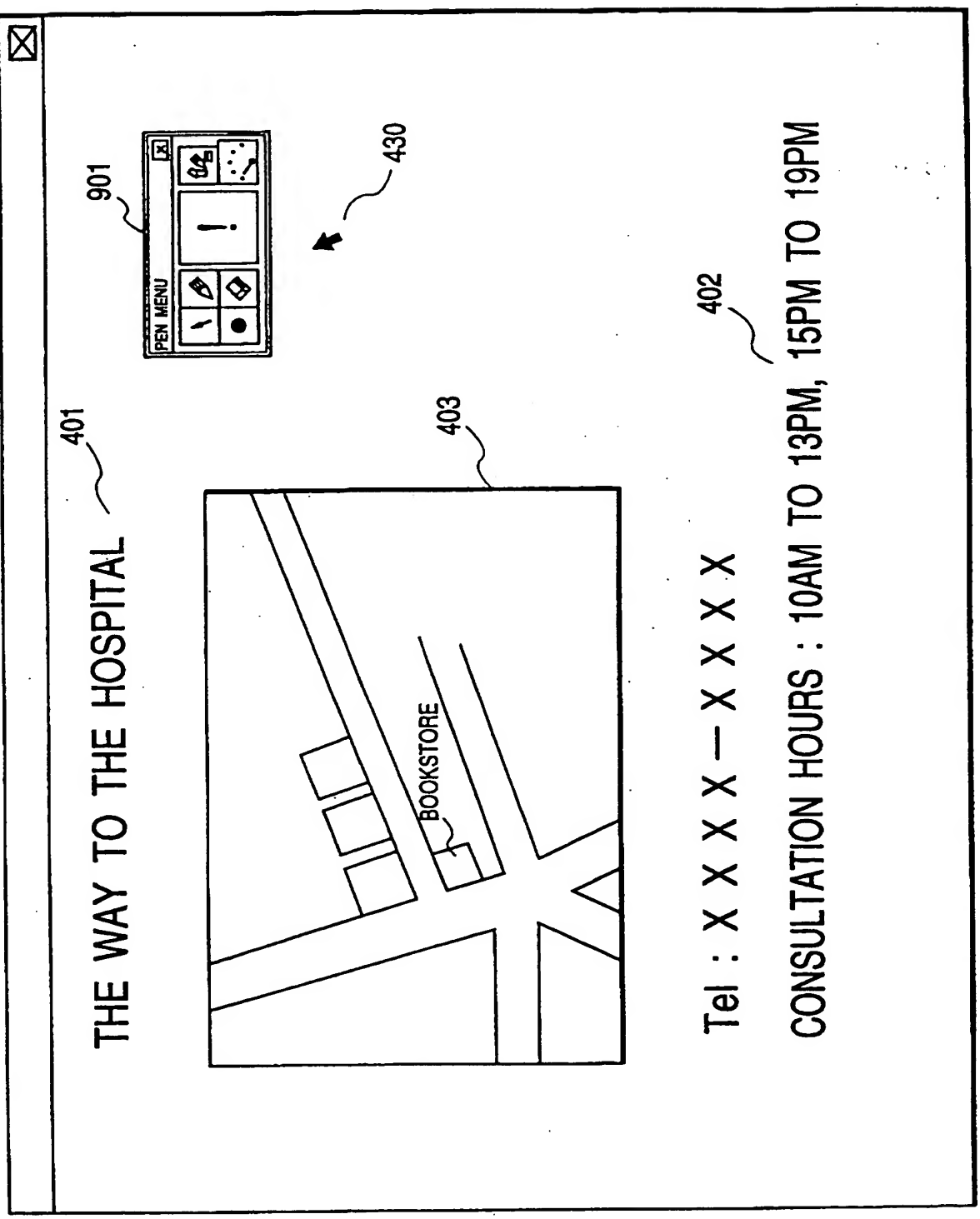

410
901
PEN MENU
430
401
THE WAY TO THE HOSPITAL
403
BOOKSTORE
402
Tel : X X X X — X X X X
CONSULTATION HOURS : 10AM TO 13PM, 15PM TO 19PM

FIG. 11

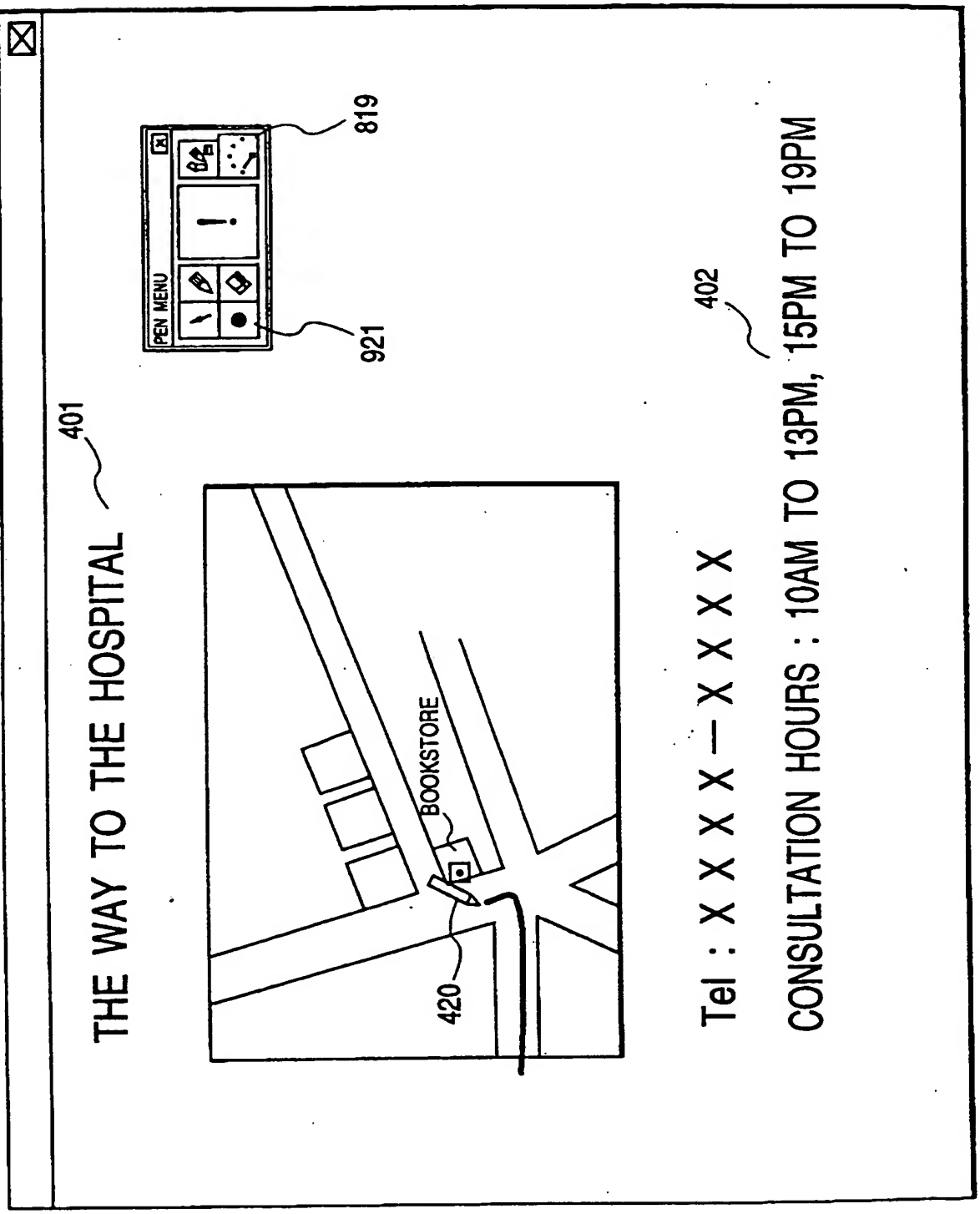
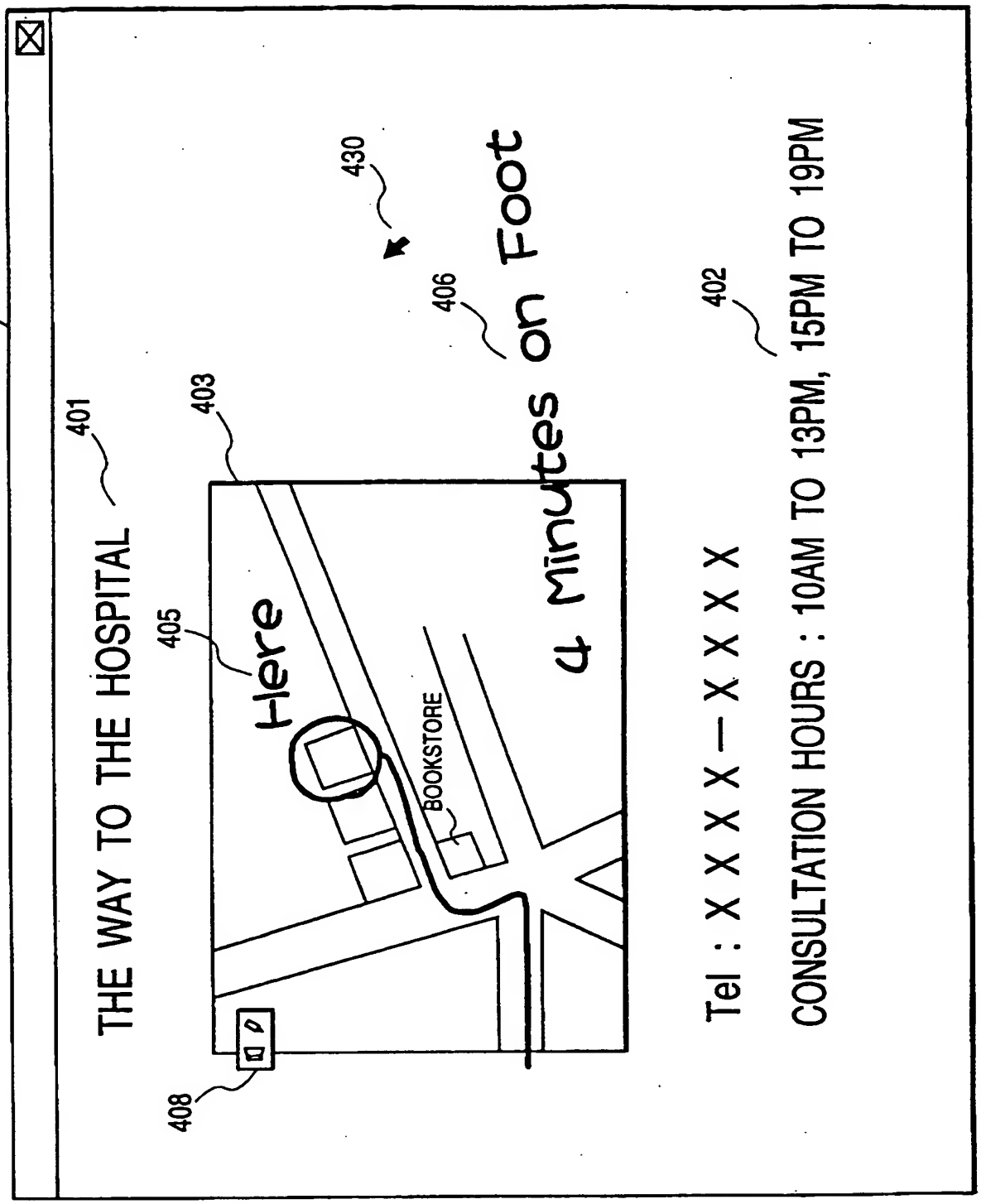

410
PEN MENU
819
921
401
THE WAY TO THE HOSPITAL
BOOKSTORE
420
402
Tel : X X X X — X X X X
CONSULTATION HOURS : 10AM TO 13PM, 15PM TO 19PM

FIG. 12


410
THE WAY TO THE HOSPITAL
401
403
405
Here
BOOKSTORE
408
430
406
4 minutes on Foot
402
Tel : X X X X — X X X X
CONSULTATION HOURS : 10AM TO 13PM, 15PM TO 19PM

Scanned with CamScanner

FIG. 13

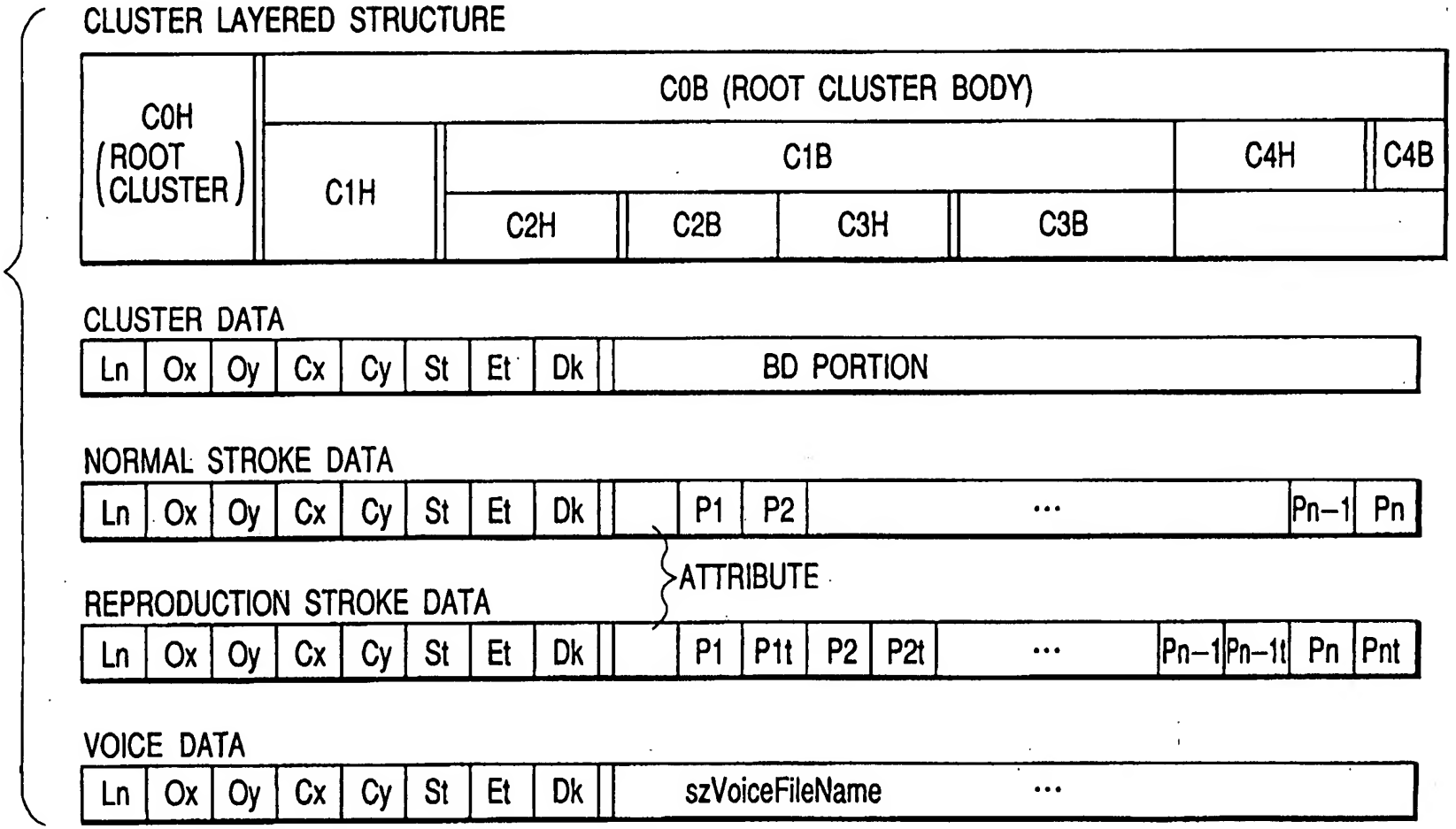


FIG. 14

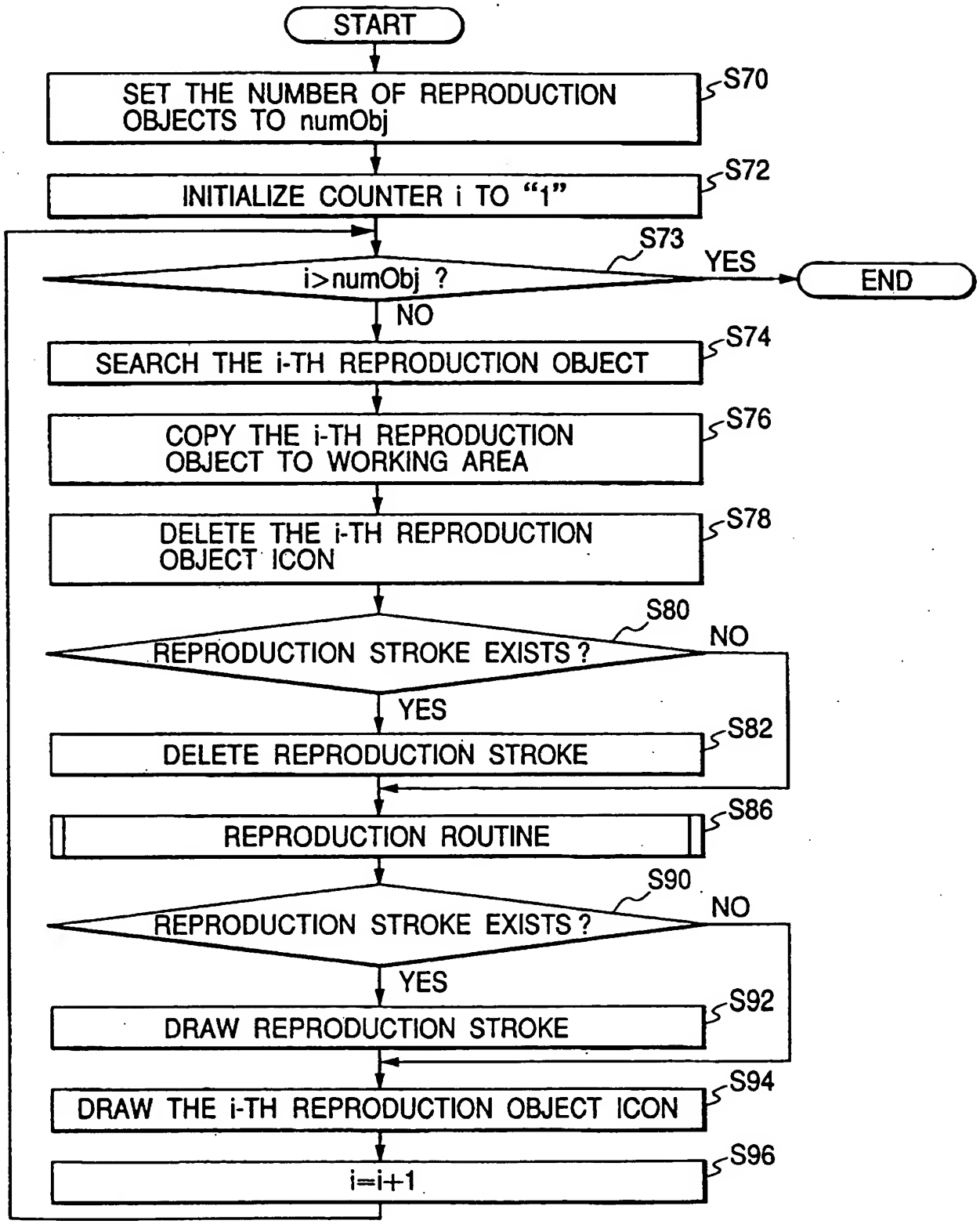

START
SET THE NUMBER OF REPRODUCTION OBJECTS TO numObj
S70
INITIALIZE COUNTER i TO "1"
S72
S73
i>numObj ?
YES
END
NO
SEARCH THE i-TH REPRODUCTION OBJECT
S74
COPY THE i-TH REPRODUCTION OBJECT TO WORKING AREA
S76
DELETE THE i-TH REPRODUCTION OBJECT ICON
S78
S80
REPRODUCTION STROKE EXISTS ?
NO
YES
DELETE REPRODUCTION STROKE
S82
REPRODUCTION ROUTINE
S86
S90
REPRODUCTION STROKE EXISTS ?
NO
YES
DRAW REPRODUCTION STROKE
S92
DRAW THE i-TH REPRODUCTION OBJECT ICON
S94
i=i+1
S96

FIG. 15

FIG. 15A

FIG. 15B

FIG. 15A

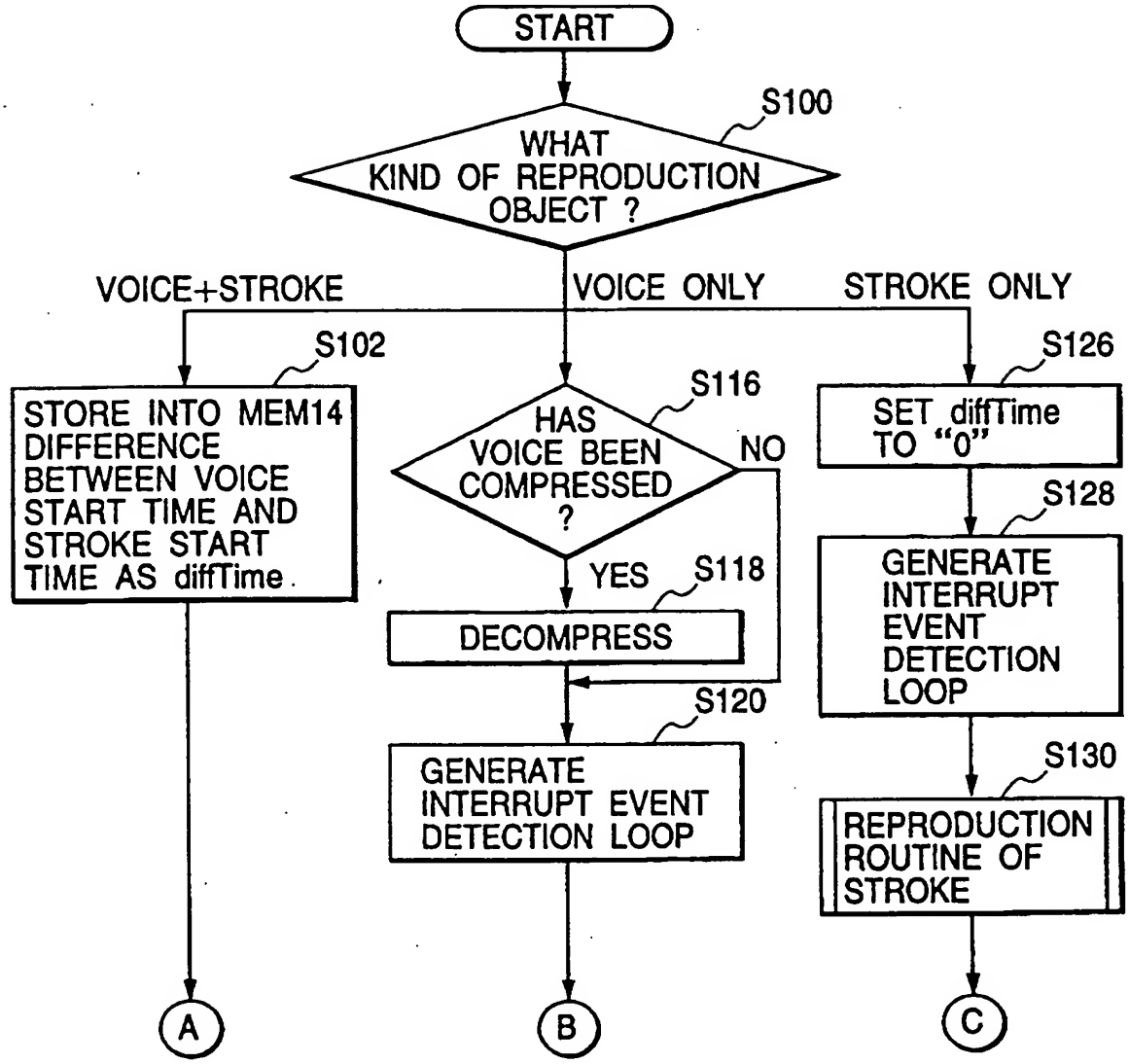


FIG. 15B

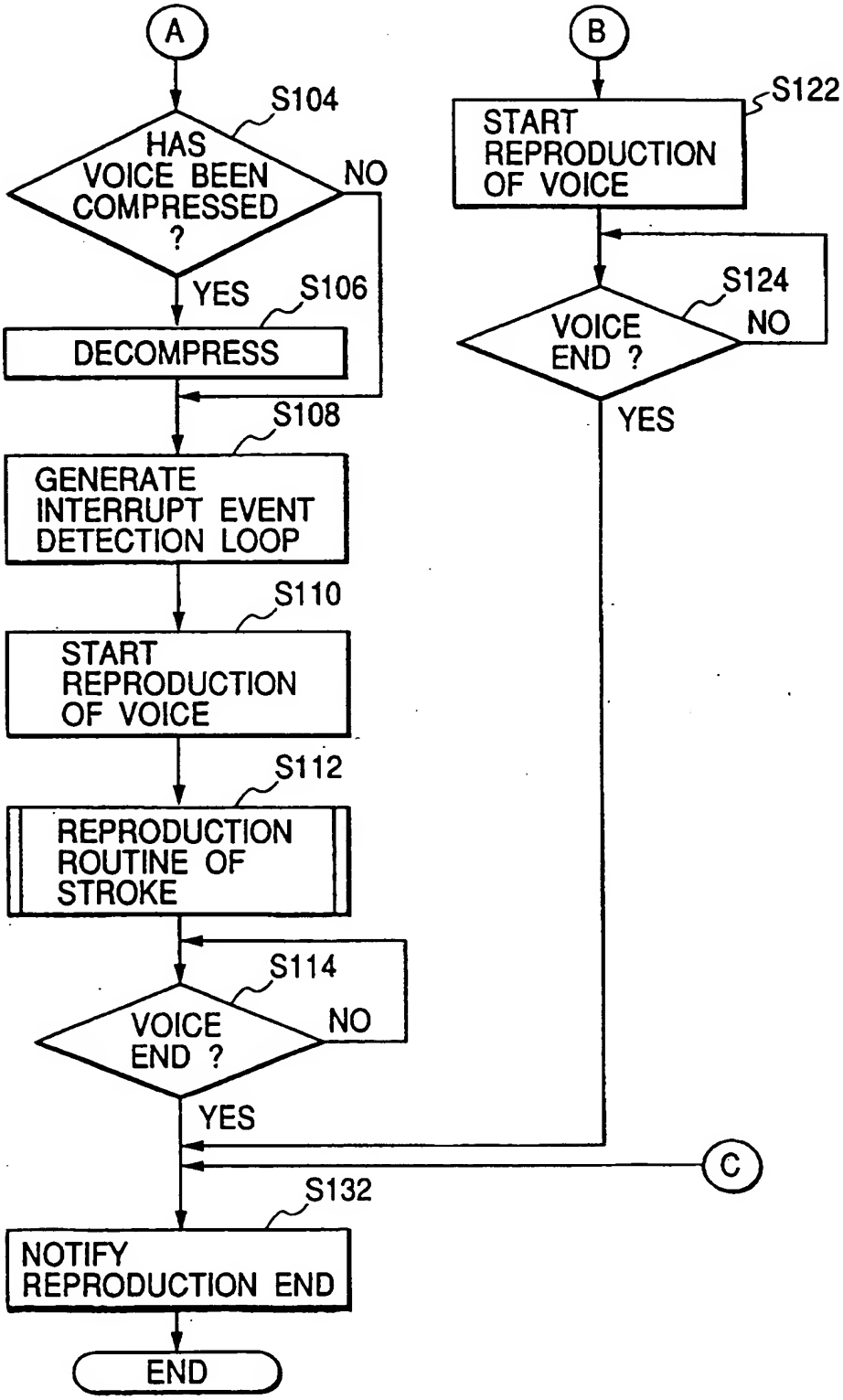

A
B
S104
HAS VOICE BEEN COMPRESSED ?
NO
YES
S106
DECOMPRESS
S108
GENERATE INTERRUPT EVENT DETECTION LOOP
S110
START REPRODUCTION OF VOICE
S112
REPRODUCTION ROUTINE OF STROKE
S114
VOICE END ?
NO
YES
S122
START REPRODUCTION OF VOICE
S124
VOICE END ?
NO
YES
C
S132
NOTIFY REPRODUCTION END
END

FIG. 16

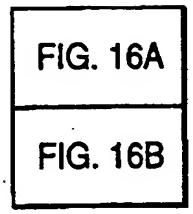


FIG. 16A

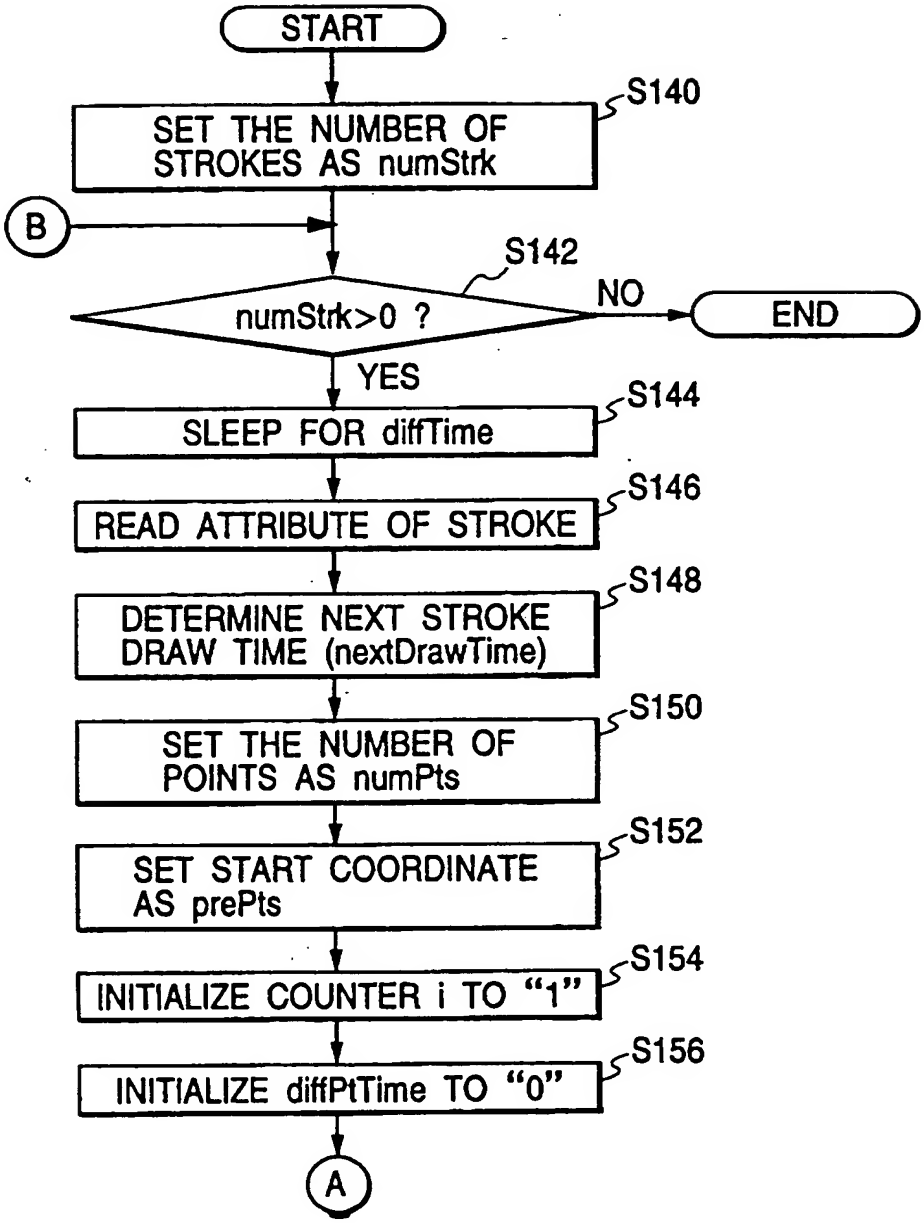


FIG. 16B

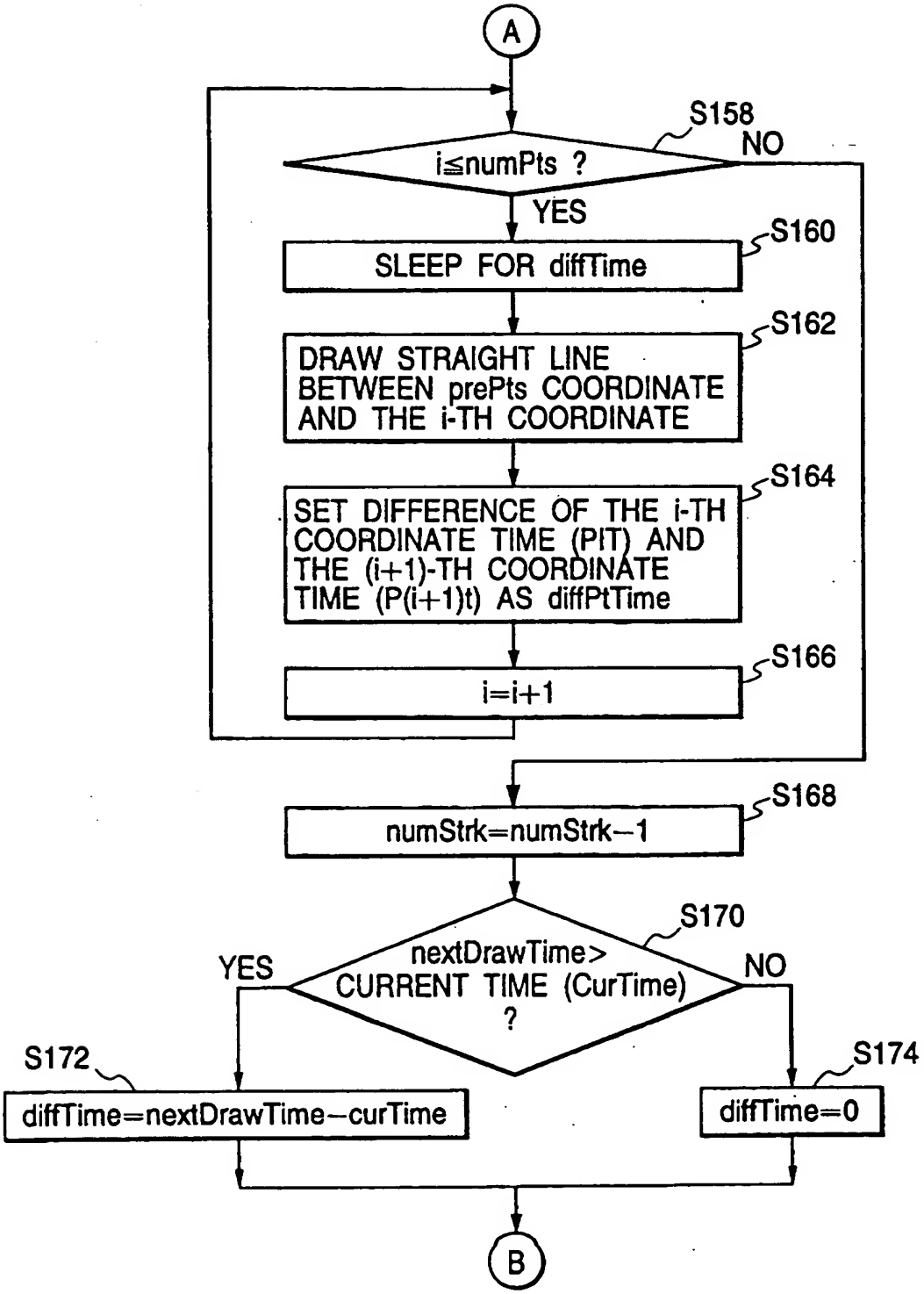

A
S158
i≤numPts ?
NO
YES
S160
SLEEP FOR diffTime
S162
DRAW STRAIGHT LINE BETWEEN prePts COORDINATE AND THE i-TH COORDINATE
S164
SET DIFFERENCE OF THE i-TH COORDINATE TIME (PIT) AND THE (i+1)-TH COORDINATE TIME (P(i+1)t) AS diffPtTime
S166
i=i+1
S168
numStrk=numStrk−1
S170
nextDrawTime> CURRENT TIME (CurTime) ?
YES
NO
S172
diffTime=nextDrawTime−curTime
S174
diffTime=0
B

FIG. 17

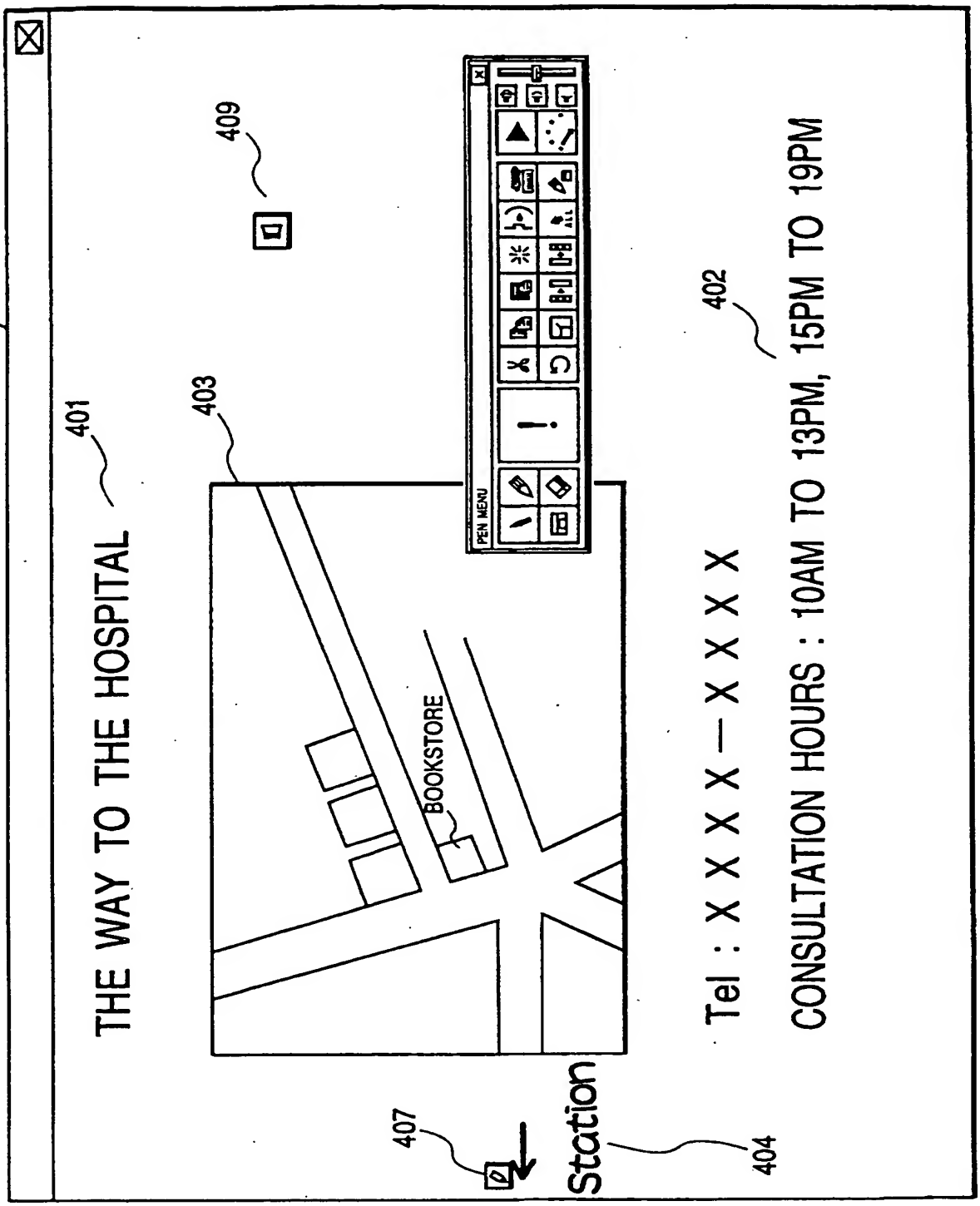

410
THE WAY TO THE HOSPITAL
401
403
409
PEN MENU
BOOKSTORE
402
Tel : X X X X — X X X X
CONSULTATION HOURS : 10AM TO 13PM, 15PM TO 19PM
407
Station
404

FIG. 18

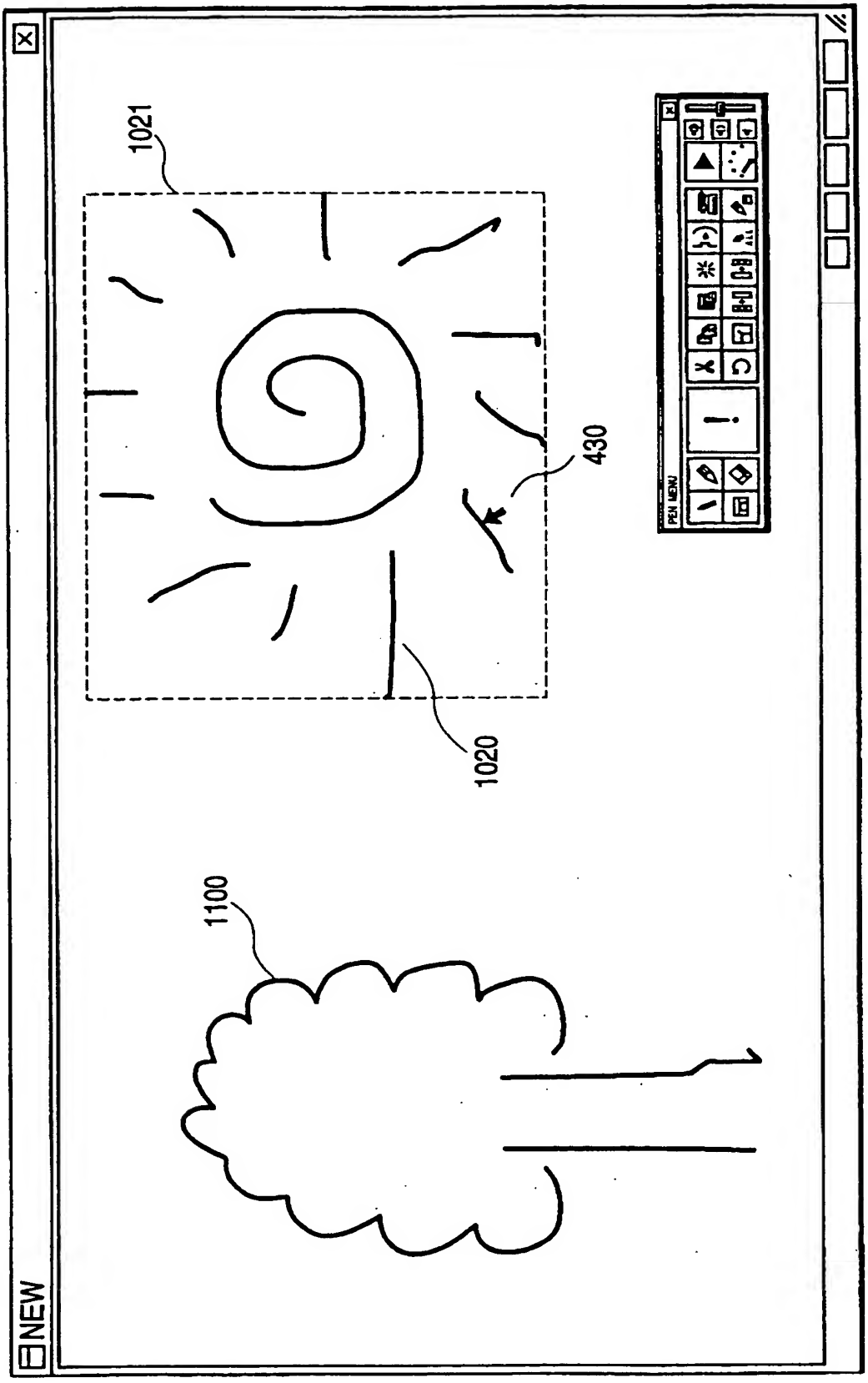


FIG. 19

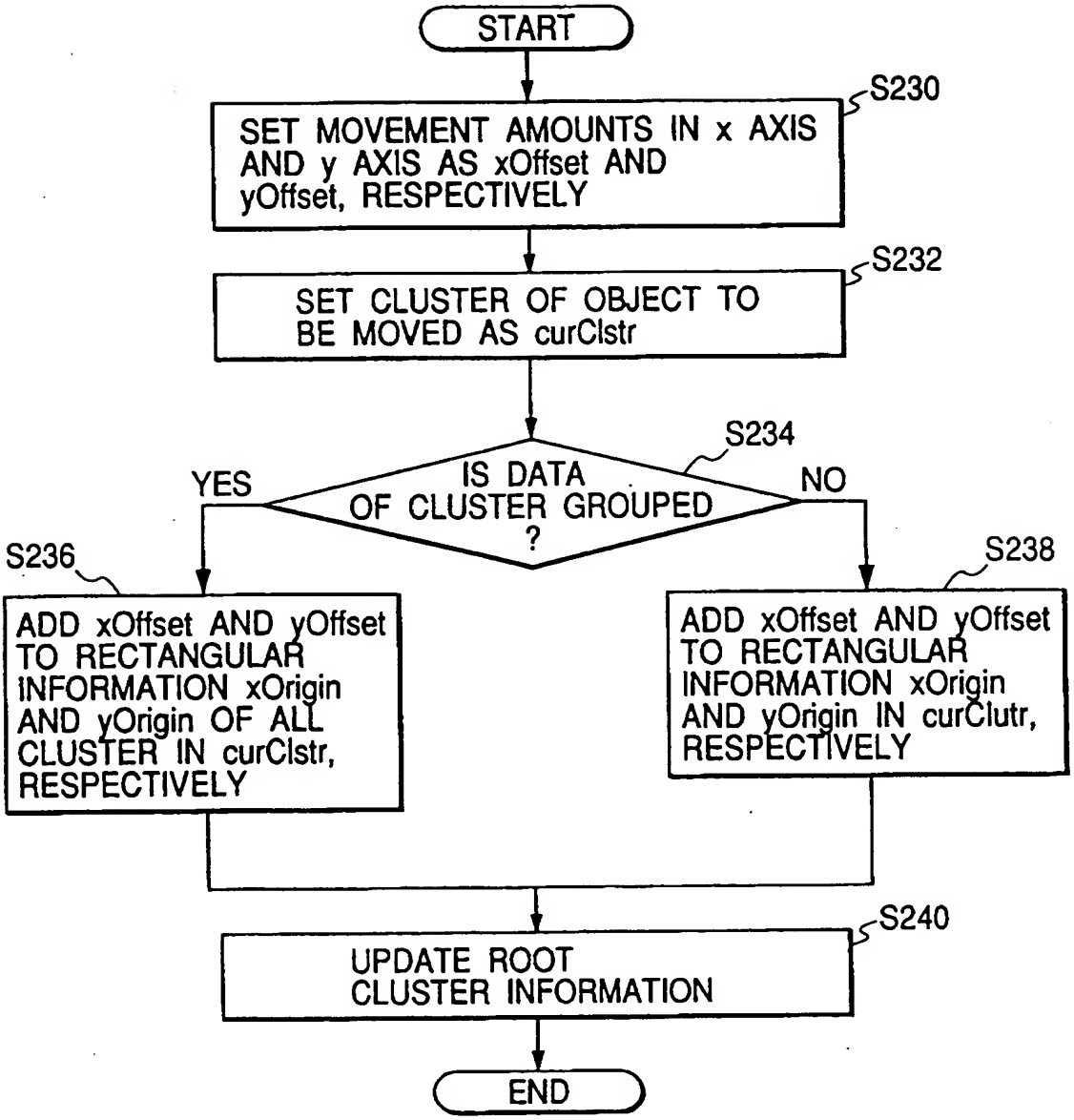

START
S230
SET MOVEMENT AMOUNTS IN x AXIS AND y AXIS AS xOffset AND yOffset, RESPECTIVELY
S232
SET CLUSTER OF OBJECT TO BE MOVED AS curClstr
S234
IS DATA OF CLUSTER GROUPED ?
YES
NO
S236
ADD xOffset AND yOffset TO RECTANGULAR INFORMATION xOrigin AND yOrigin OF ALL CLUSTER IN curClstr, RESPECTIVELY
S238
ADD xOffset AND yOffset TO RECTANGULAR INFORMATION xOrigin AND yOrigin IN curClutr, RESPECTIVELY
S240
UPDATE ROOT CLUSTER INFORMATION
END

FIG. 20

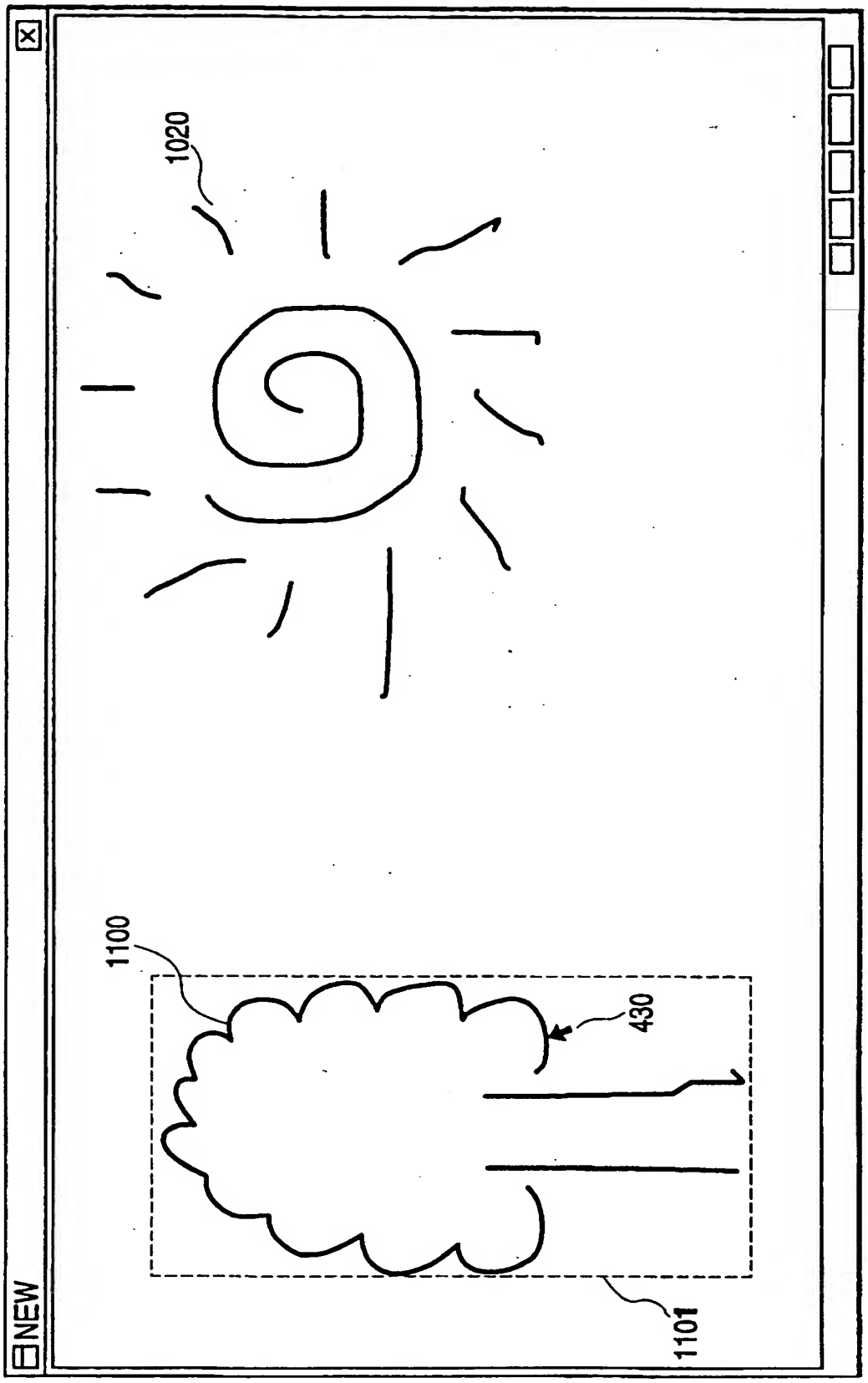


FIG. 21

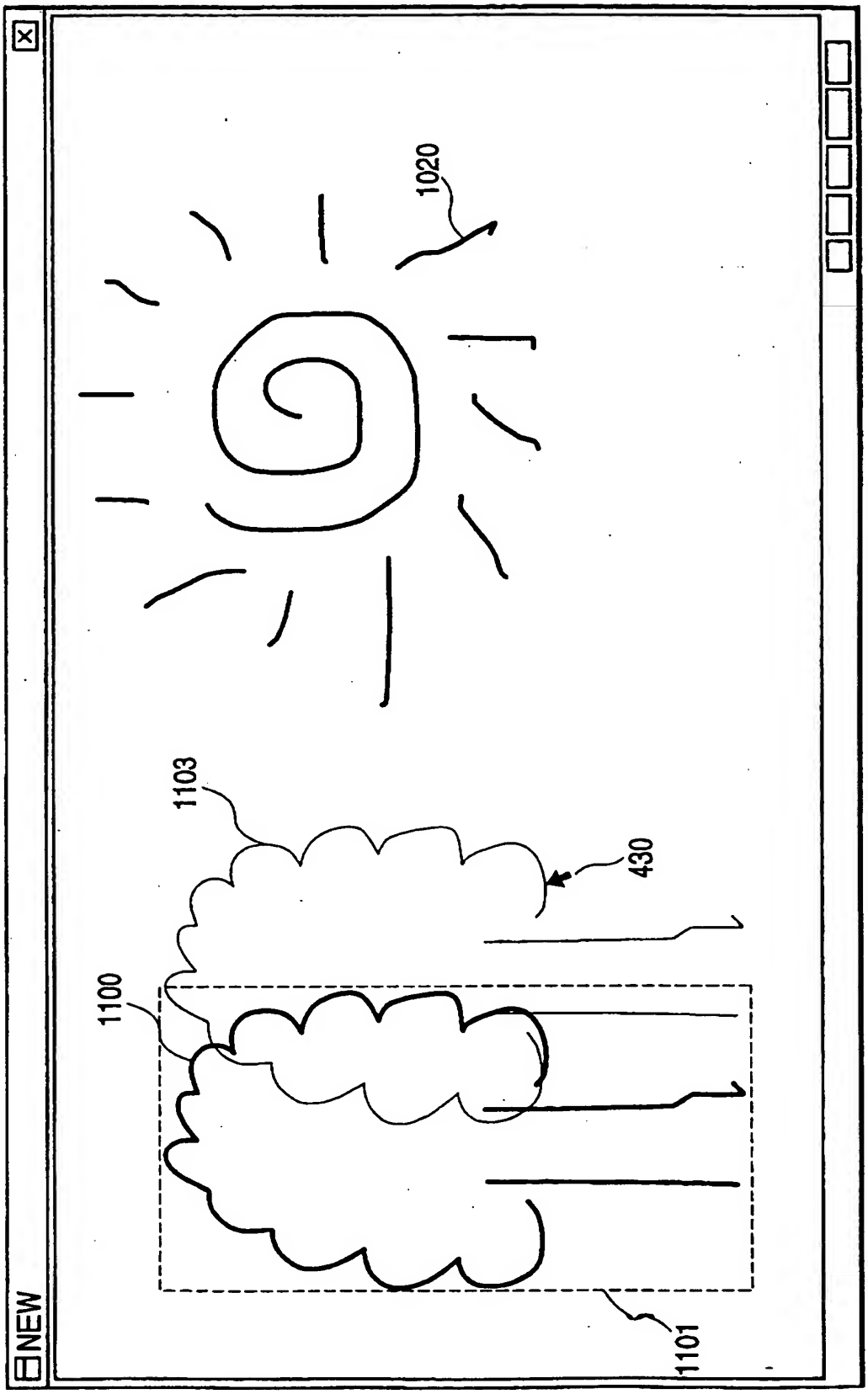


FIG. 22

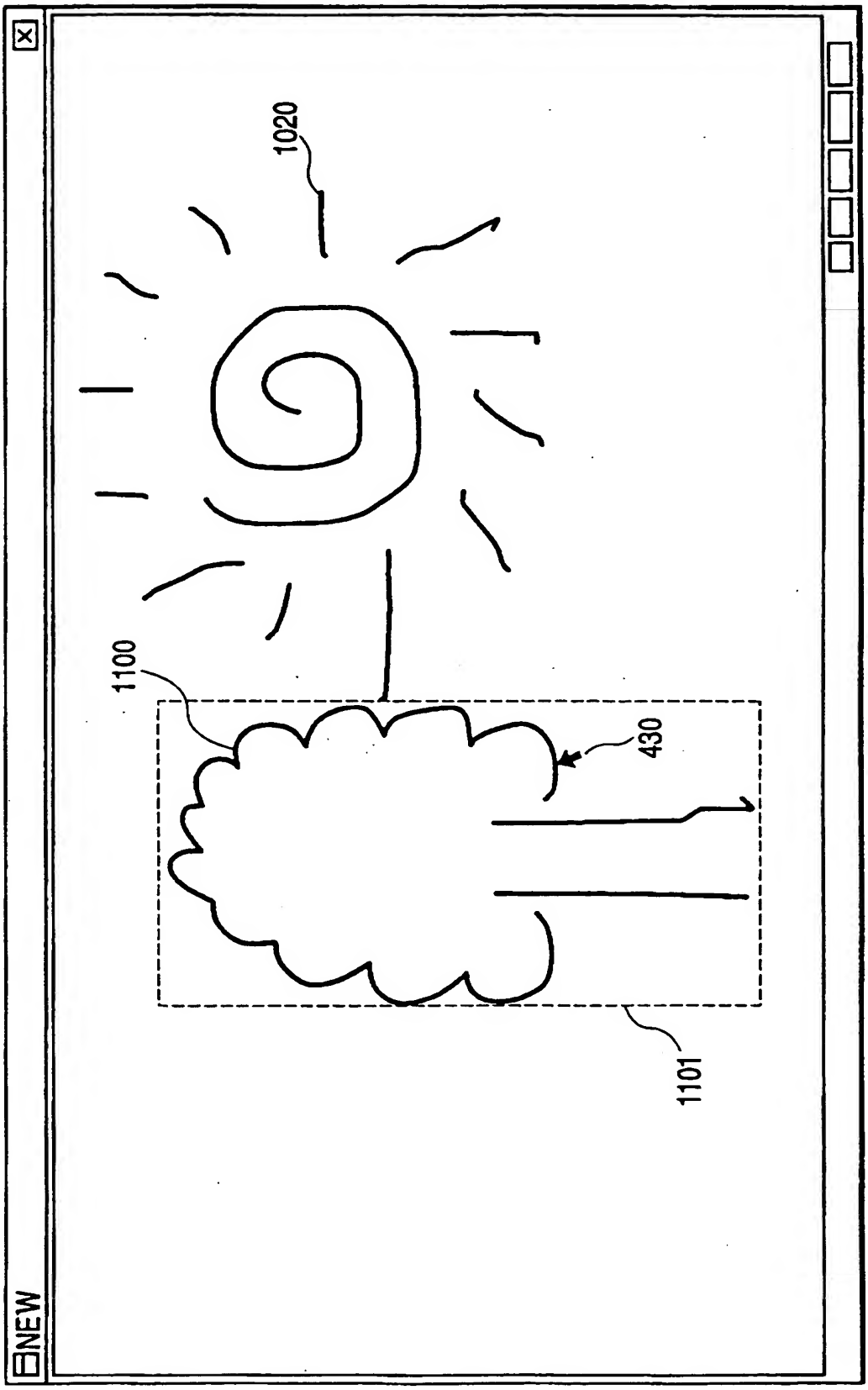


FIG. 23

FIG. 23A

FIG. 23B

FIG. 23A

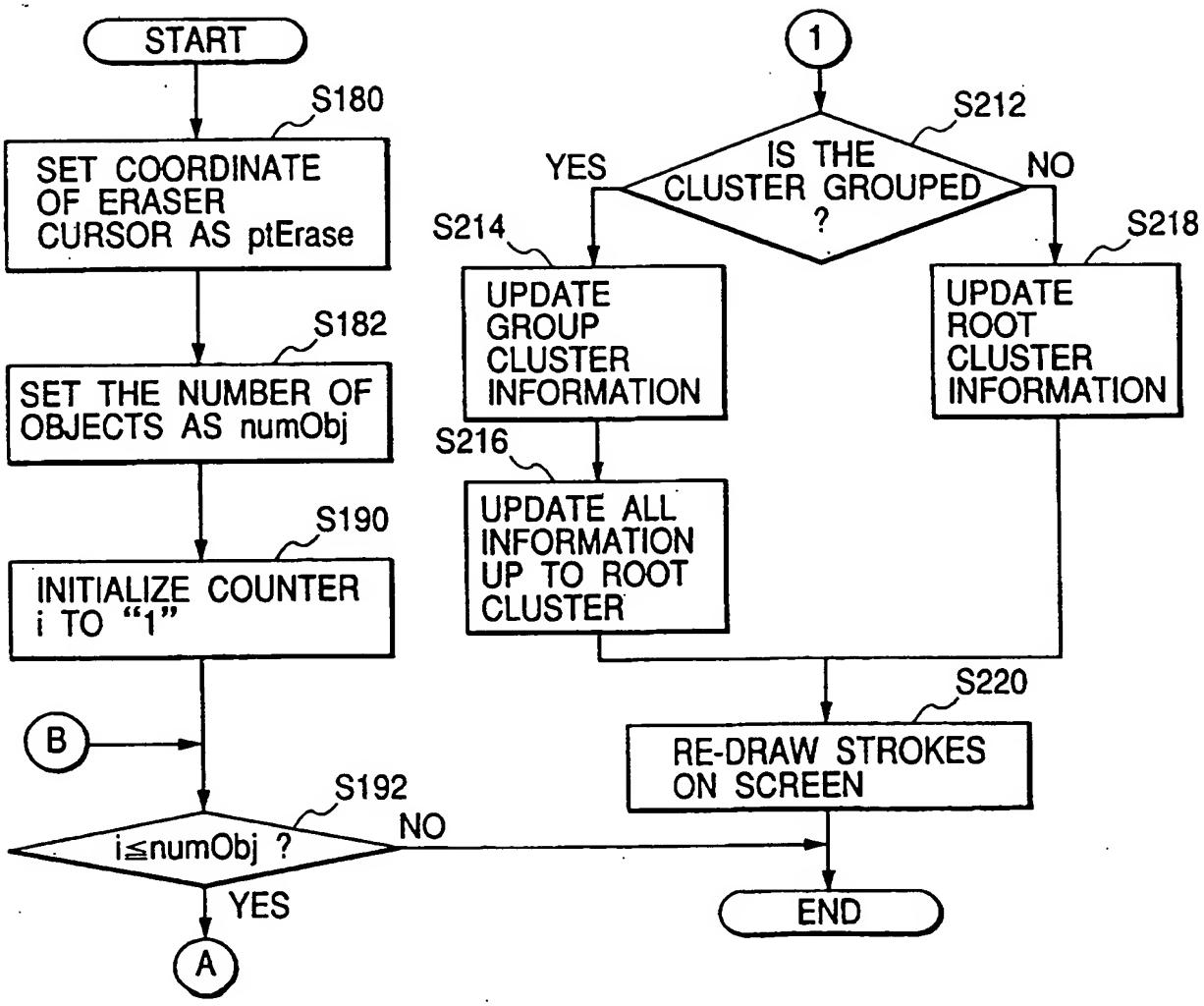


FIG. 23B

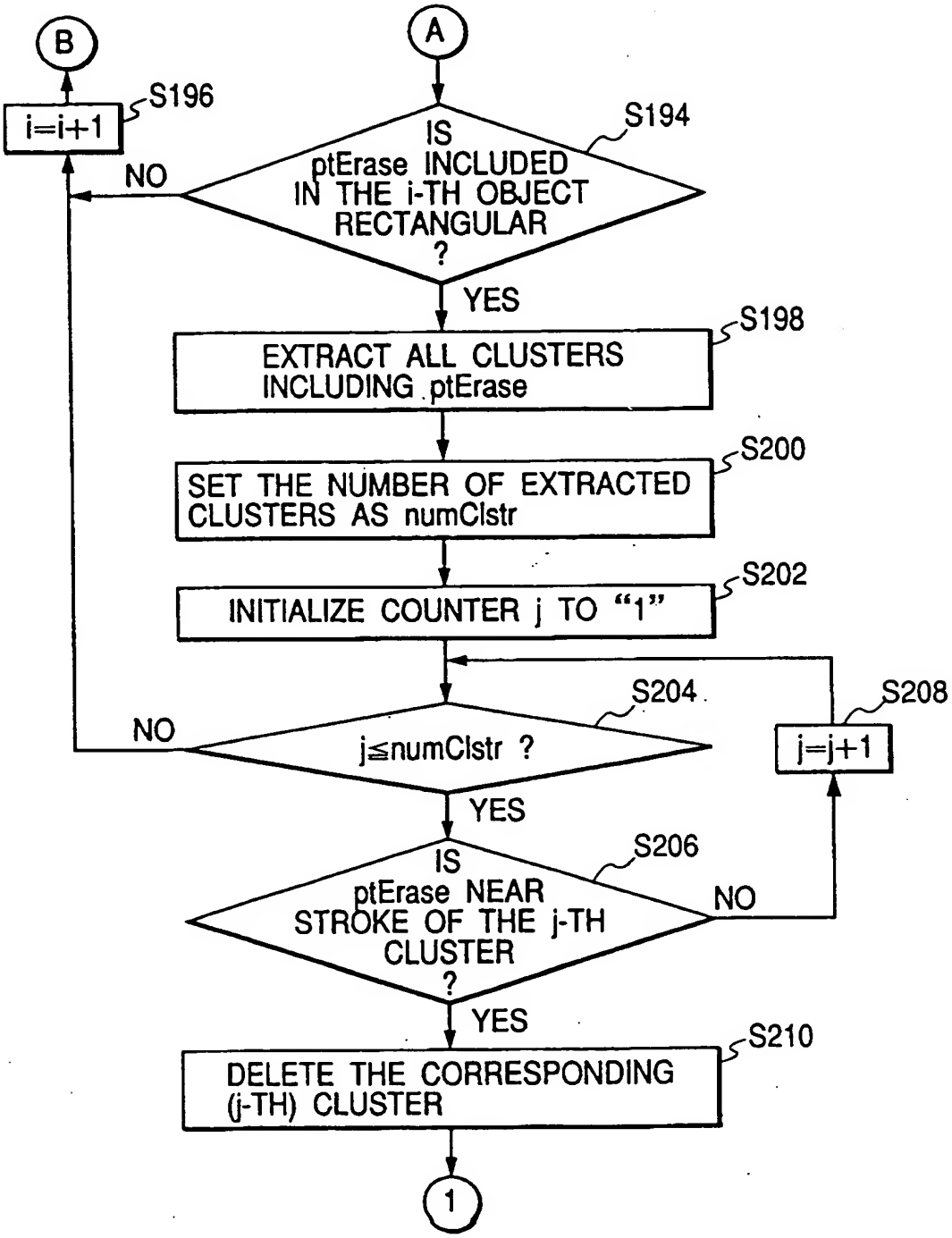

B
A
i=i+1
S196
IS ptErase INCLUDED IN THE i-TH OBJECT RECTANGULAR ?
S194
NO
YES
EXTRACT ALL CLUSTERS INCLUDING ptErase
S198
SET THE NUMBER OF EXTRACTED CLUSTERS AS numClstr
S200
INITIALIZE COUNTER j TO "1"
S202
S204
j≦numClstr ?
NO
YES
S208
j=j+1
IS ptErase NEAR STROKE OF THE j-TH CLUSTER ?
S206
NO
YES
DELETE THE CORRESPONDING (j-TH) CLUSTER
S210
1

FIG. 24

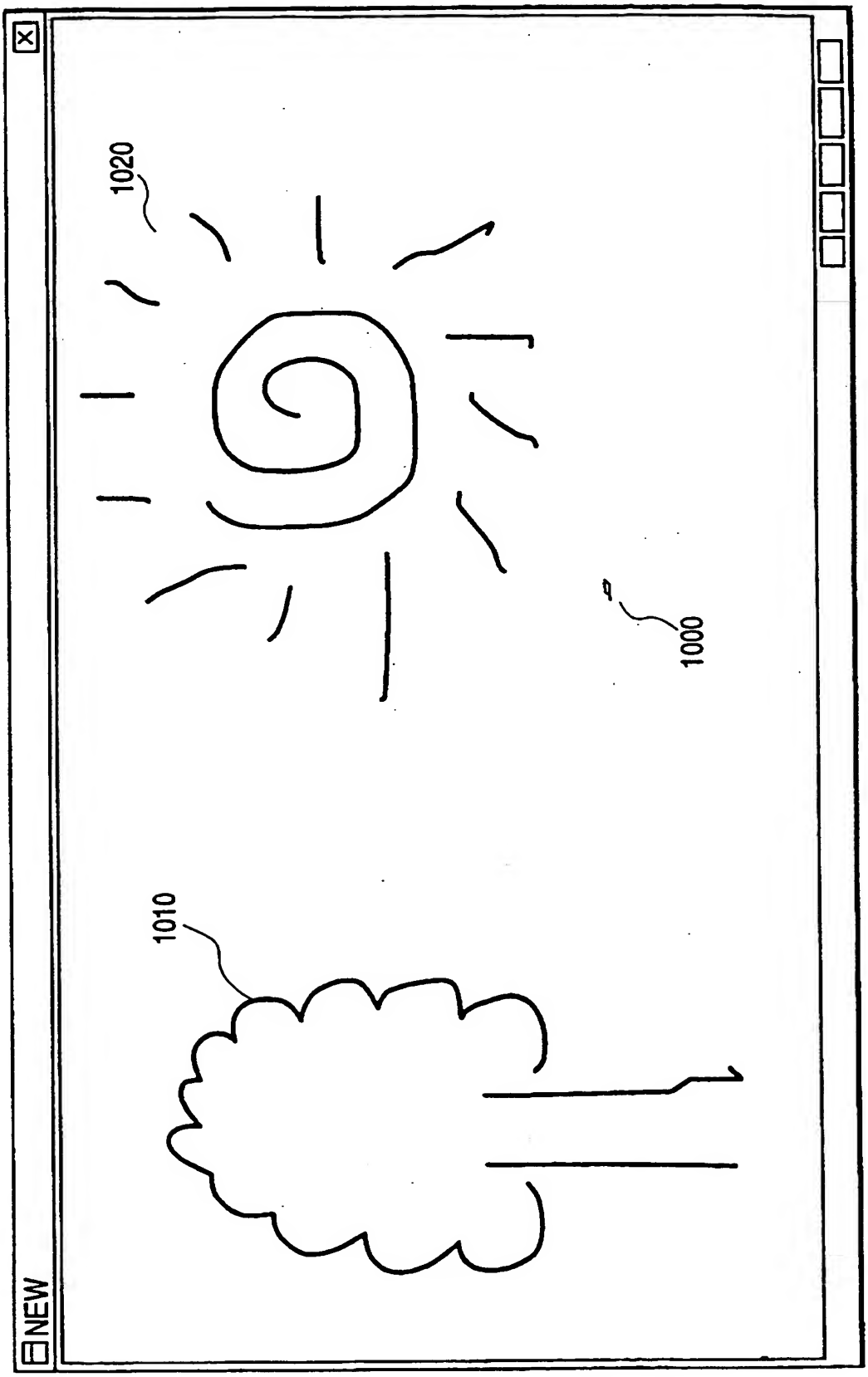


FIG. 25

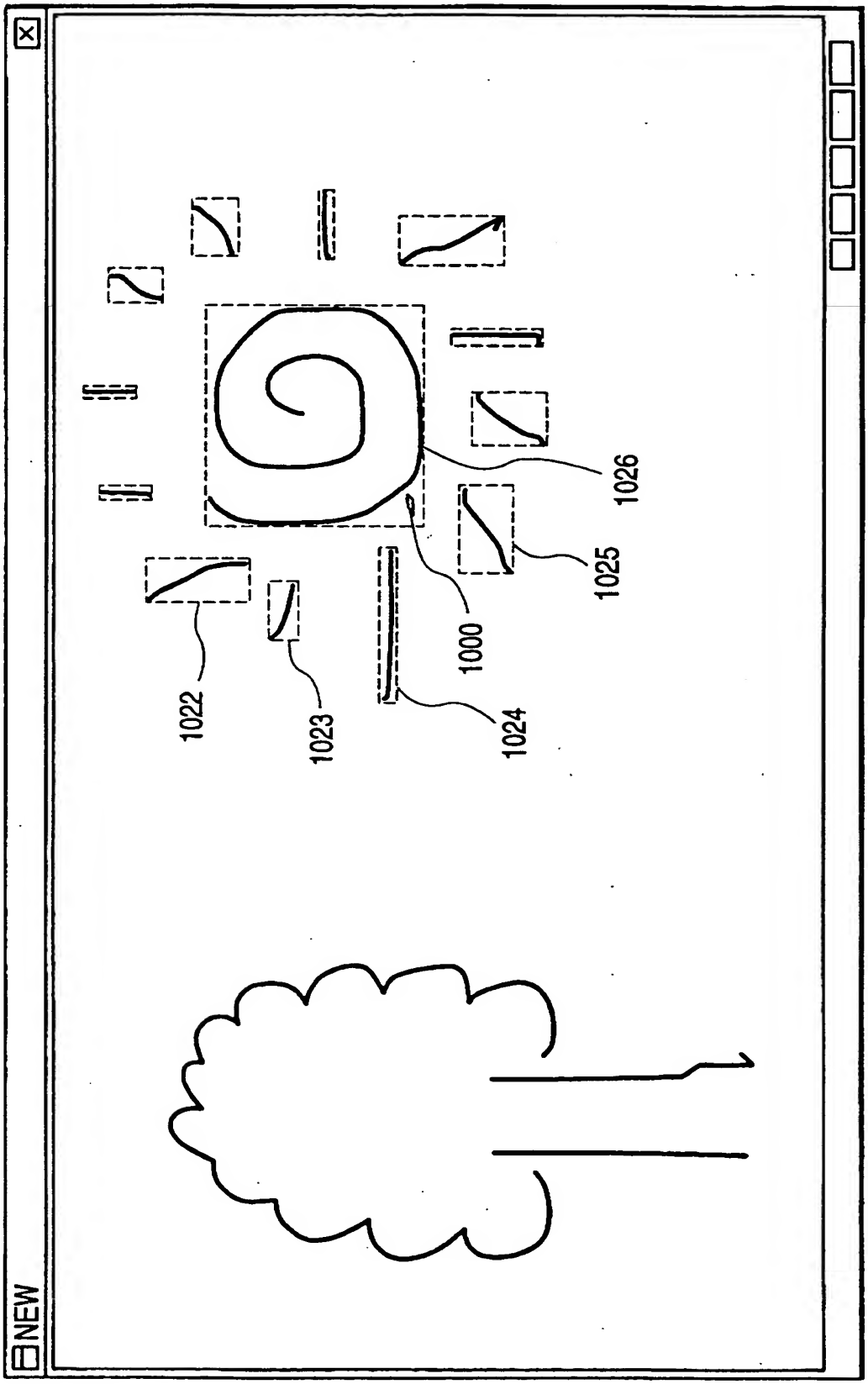


FIG. 26

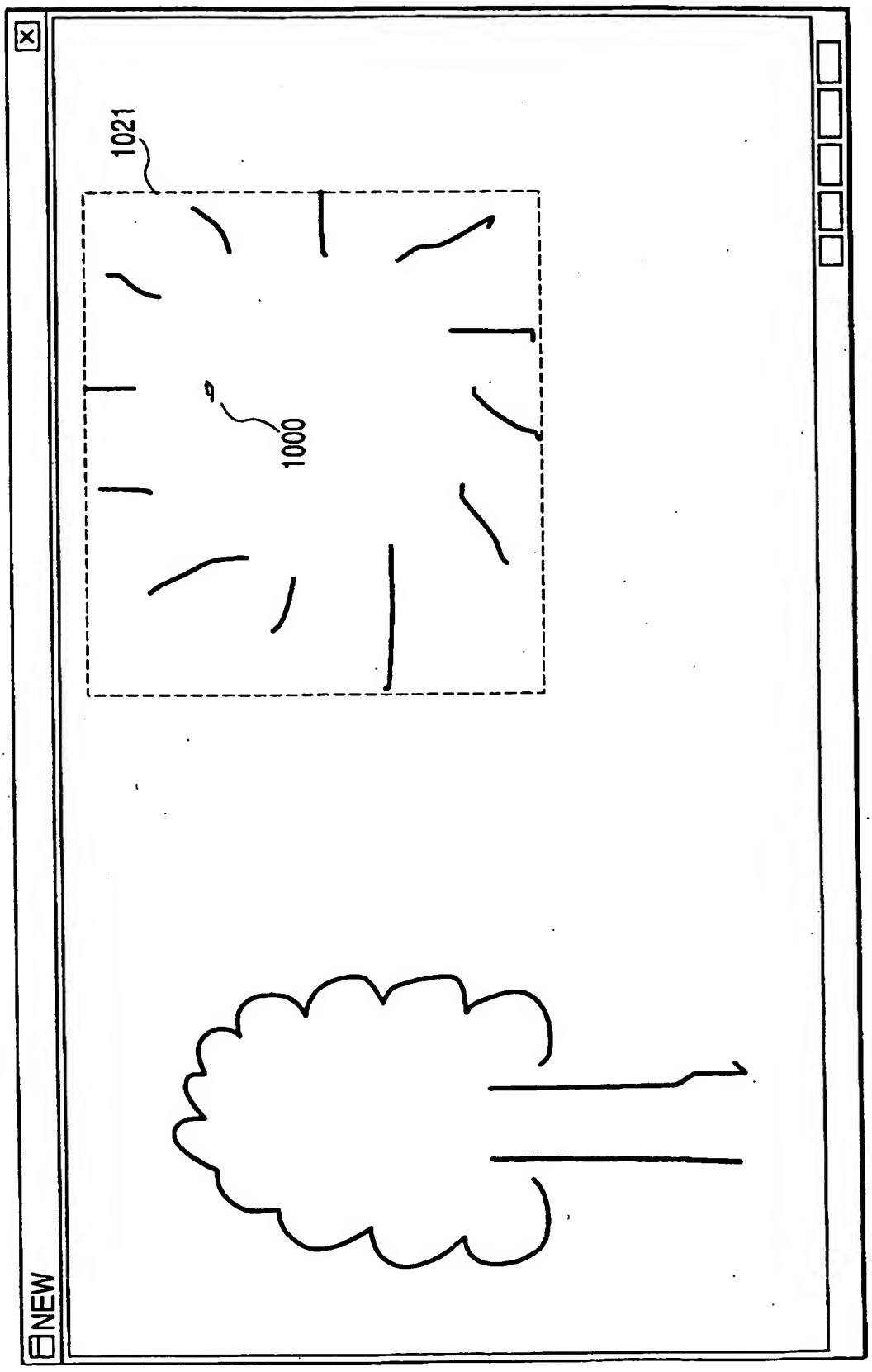


FIG. 27

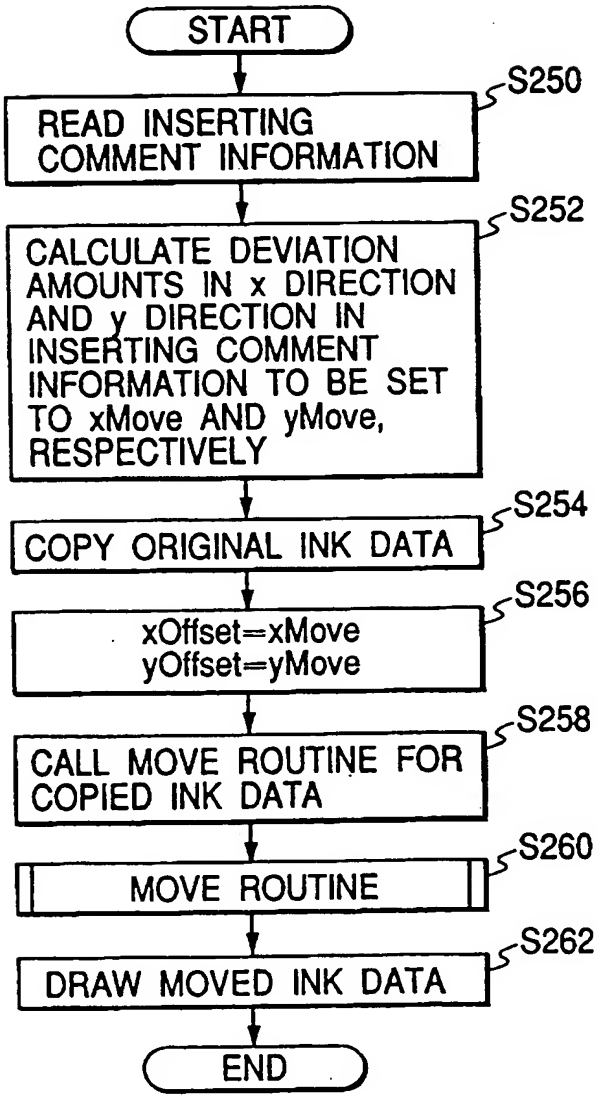

START
READ INSERTING COMMENT INFORMATION
S250
CALCULATE DEVIATION AMOUNTS IN x DIRECTION AND y DIRECTION IN INSERTING COMMENT INFORMATION TO BE SET TO xMove AND yMove, RESPECTIVELY
S252
COPY ORIGINAL INK DATA
S254
xOffset=xMove
yOffset=yMove
S256
CALL MOVE ROUTINE FOR COPIED INK DATA
S258
MOVE ROUTINE
S260
DRAW MOVED INK DATA
S262
END

FIG. 28

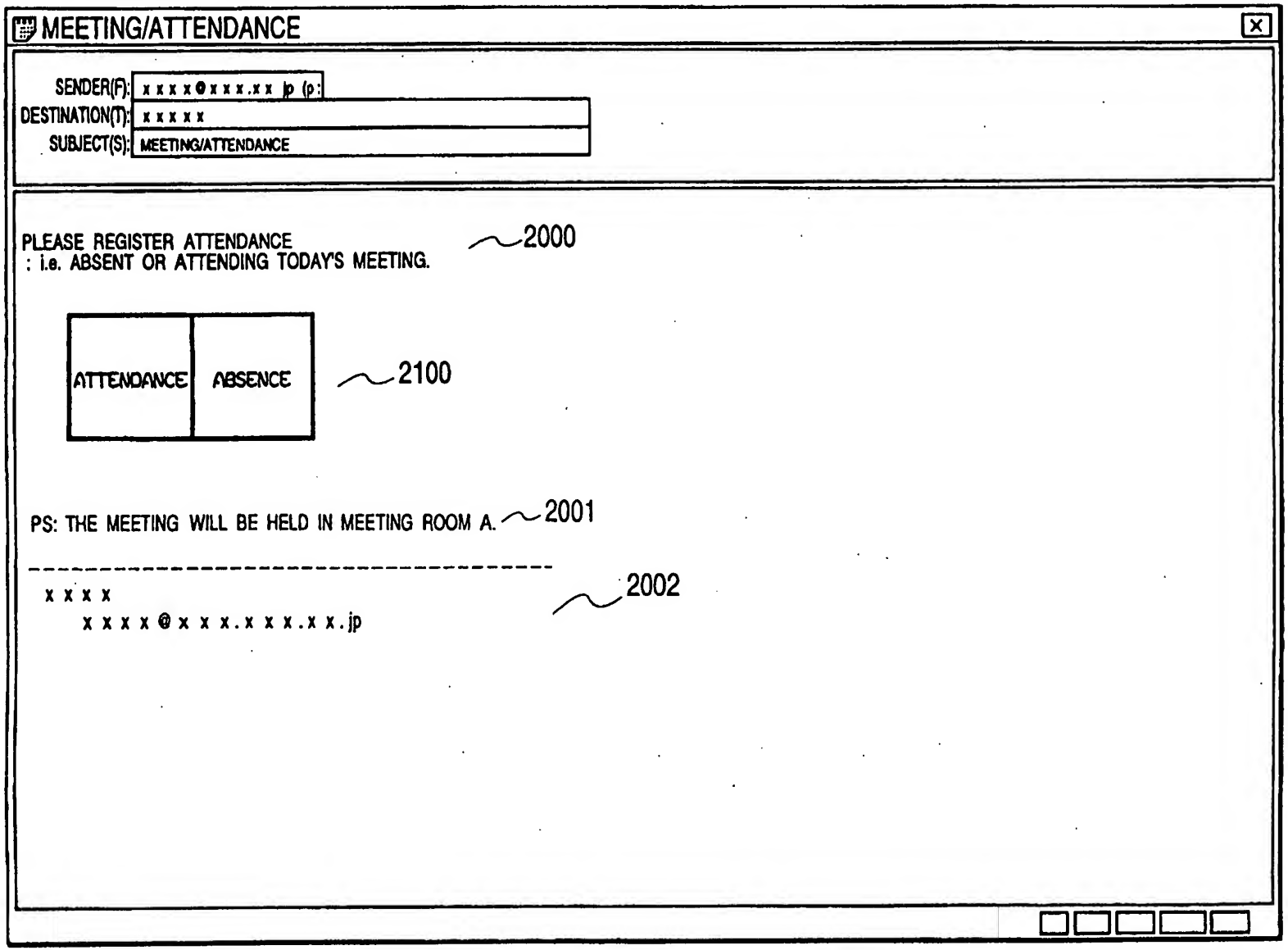
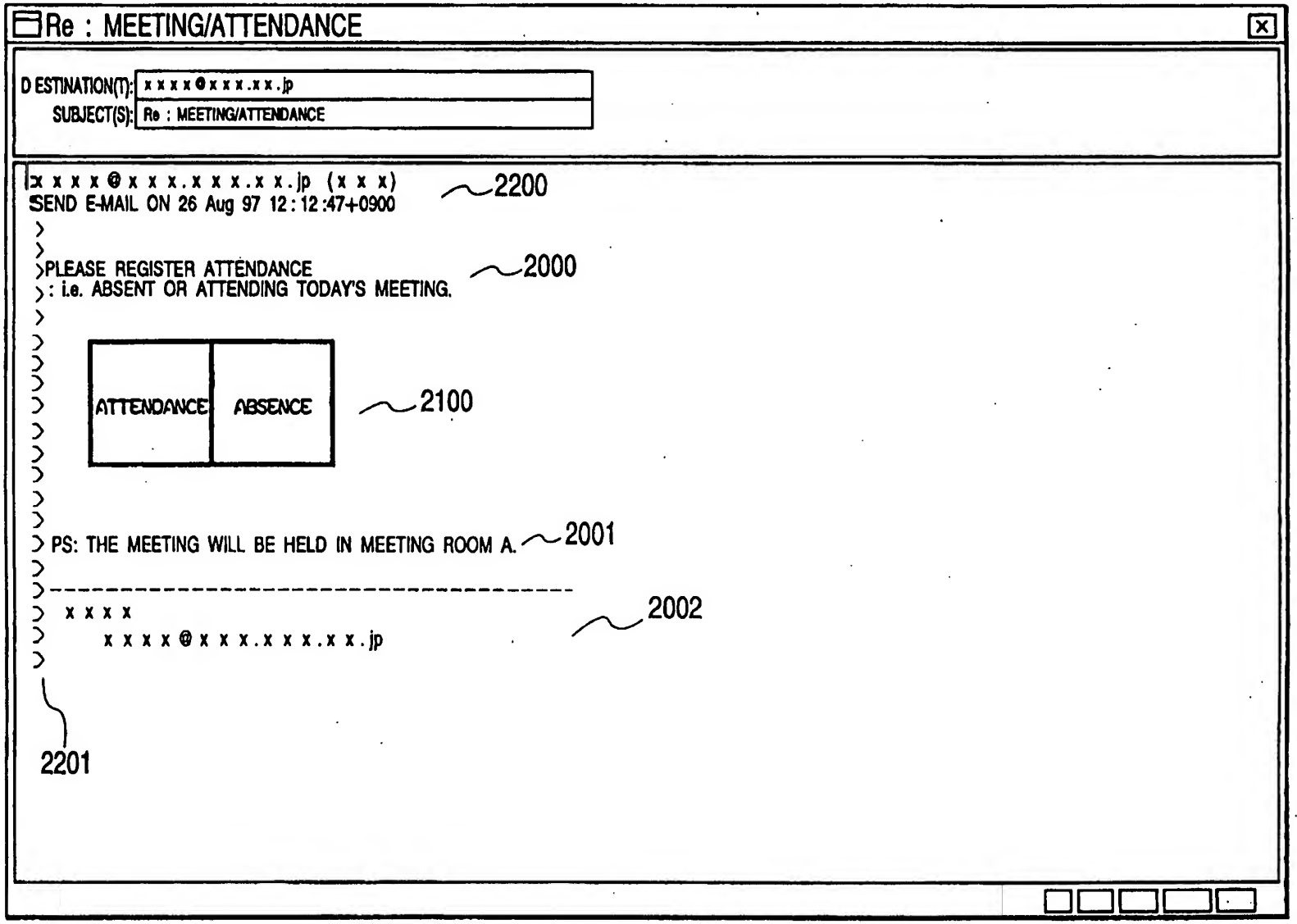

MEETING/ATTENDANCE
SENDER(F):
DESTINATION(T):
SUBJECT(S):
MEETING/ATTENDANCE
PLEASE REGISTER ATTENDANCE
: i.e. ABSENT OR ATTENDING TODAY'S MEETING.
2000
ATTENDANCE
ABSENCE
2100
PS: THE MEETING WILL BE HELD IN MEETING ROOM A.
2001
2002

FIG. 29


Re : MEETING/ATTENDANCE
DESTINATION(T): xxxx@xxx.xx.jp
SUBJECT(S): Re : MEETING/ATTENDANCE
xxxx@xxx.xxx.xx.jp (xxx)
SEND E-MAIL ON 26 Aug 97 12:12:47+0900
2200
>PLEASE REGISTER ATTENDANCE
>: i.e. ABSENT OR ATTENDING TODAY'S MEETING.
2000
ATTENDANCE
ABSENCE
2100
PS: THE MEETING WILL BE HELD IN MEETING ROOM A.
2001
xxxx
xxxx@xxx.xxx.xx.jp
2002
2201